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LABOR

BALANCING REPRODUCTION OF FIXED CAPITAL, LABOR RESOURCES

Moscow PLANOVYE KHOZYAYSTVO in Russian No 12, Dec 81 pp 44-53

[Article by R. Tikidzhiyev, division chief of the Central Economics Scientific Research Institute under the RSFSR Gosplan: "Questions of Balance of Reproduction of Fixed Capital and Labor Resources"]

[Text] Efficient utilization of the country's production potential was set forth in the accountability report to the 26th CPSU Congress as a most important condition for carrying the major task of the Eleventh Five-Year Plan.

Fixed capital embodies a significant potential for economic and social development. The value of fixed capital in the RSFSR exceeds one trillion rubles. But the continuous growth of funds, particularly fixed capital, is not sufficiently balanced with the availability of labor resources, which is reflected in the coefficient of shift operation of equipment, time periods for the assimilation of planned capacities, the output-capital ratio and the rates of labor productivity. Therefore the Main Directions for the Economic and Social Development of the USSR During 1981-1985 and the Period up to 1990 envision "taking measures to achieve balance between existing and newly created jobs, on the one hand, and labor resources, on the other"

Both established industrial regions and developing ones are experiencing a shortage of labor resources. At certain enterprises the lack of balance between calculated capacities and the numbers of workers is becoming more marked. This is manifested in the failure to fill jobs on the second and third shifts, and it leads to a reduction of the coefficient of shift work (its normative amount in the plans is at the level of 1.7-1.8). Thus at the machine building and metal processing enterprises of the RSFSR that were investigated, it had decreased from 1.34 in 1977 to 1.33 in 1980, including at those under the jurisdiction of the RSFSR Council of Ministers--from 1.14 to 1.11. This means that these enterprises are failing to utilize approximately one-fourth of their capacity (at enterprises under the jurisdiction of the RSFSR Council of Ministers--one-third). A similar situation has arisen in the construction materials industry, in light industry and in other branches of industry. The main reason for the unsatisfactory utilization of capacity is that the reproduction structure of capital investments and fixed capital is formed without properly taking into account the condition of labor resources.

*"Materialy XXVI s"yezda KPSS" [Materials of the 26th CPSU Congress], Moscow, Politizdat, 1981 p 141.

Calculations show that the scale of reconstruction of enterprises and other facilities, during the course of which labor force should be released, is inadequate as compared to the scope of new construction and expansion of enterprises. Thus during the years of the Ninth Five-Year Plan at newly introduced enterprises and expanded enterprises, twice as many jobs were created as were improved at existing enterprises during the process of reconstruction. During three years of the Tenth Five-Year Plan the number of created jobs was 2.4 times greater than the number of jobs improved during reconstruction.

The following data demonstrate the reproduction structure that arose under the Ninth Five-Year Plan. For every unfilled job at enterprises and facilities that were reconstructed during the years of the Ninth Five-Year Plan there were the following numbers of unfilled jobs at enterprises that were newly introduced or expanded, respectively, during the same years: in 1975--4.1 and 2.7, in 1976--3.6 and 2.4, in 1977--3.6 and 3.8, and in 1978--2.2 and 3.7.

The lack of balance between jobs and labor resources is brought about also by shortcomings that exist in planning reconstruction. Many ministries utilize reconstruction in order to expand existing production. In many plans for reconstruction of enterprises and other facilities, instead of releasing workers, the number of jobs is to be increased, which contradicts the purpose of the given form of reproduction of fixed capital in the RSFSR as a whole at enterprises and other facilities that were reconstructed during the years of the Ninth Five-Year Plan, the planned number of industrial production personnel exceeded the number before reconstruction by 100,000 or 18 percent. In the five RSFSR ministries alone the planned number of workers was increased by 15,000 (in the system of the Ministry of the Meat and Dairy Industry--by 22.6 percent, the Ministry of the Construction Materials Industry--by 27.4 percent, the Ministry of Light Industry--by 31.7 percent, the Ministry of the Textile Industry--by 35.2 percent, and the Ministry of the Food Industry--by 35.8 percent).

Because of shortcomings in the planning of the reproduction structure of capital investments and the planning and reconstruction of enterprises and other facilities, the lack of industrial production personnel even at reconstructed enterprises, although it is decreasing, is still appreciable. For example, in 1975 it amounted to 10.9 percent, in 1976--7.0 percent, in 1977--5.7 percent and in 1978--4.3 percent as compared to the planned level. Enterprises of the RSFSR Ministry of Light Industry are especially slow in providing personnel for reconstructed enterprises. The shortage of workers at them reached the following proportions during the same years, respectively: 27.4 percent, 14.6 percent, 14.0 percent and 15.2 percent.

As analysis shows, reconstruction can be accompanied by a more significant increase in the coefficient of shift operation of equipment at existing enterprises. There could also be a greater effect achieved during the course of the reconstruction of enterprises and other facilities from the release of personnel and the creation of the necessary reserve of labor resources for expansion and new construction. Instead of the 182,000 men released under the Ninth Five-Year Plan as a result of increased labor productivity during the course of reconstruction, a total of 82,000 men could have been used for these purposes.

There has been marked improvement in providing new enterprises with labor force, but there are still unutilized reserves. Thus during the years of the Ninth Five-Year Plan 31 percent of the jobs at new industrial enterprises were not filled, in 1976--19.1 percent, in 1977--13.4 percent and in 1978--8 percent as compared to the planned level. In individual ministries this indicator was higher: for the USSR Ministry of Light Industry during 1976-1978 these figures were, respectively: 26.7 percent, 22.4 percent and 21.4 percent.

New jobs created during the same period with the expansion of existing enterprises were not provided with personnel rapidly enough either. As a result of this, the shortage of personnel amounted to 13 percent of the planned level in 1978. For the Ministry of Heavy Machine Building this amount averaged 30 percent during the period under construction, and for the RSFSR Ministry of the Food Industry--17 percent.

The overall shortage of industrial production personnel at enterprises, as a result of the measures involved in all three kinds of the aforementioned forms of reproduction of fixed capital during the years of the Ninth Five-Year Plan, according to our calculations, amounted to 8-21 percent of the planned level during 1976-1978. Additionally, under the Tenth Five-Year Plan the rates at which new jobs were created continued to be high. For each unfilled job at new construction sites under the Ninth Five-Year Plan, 1.07 jobs were created in 1976, 0.92 in 1977 and 0.95 in 1978, and for enterprises that were expanded, these figures were, respectively, 1.55, 1.92 and 1.0 jobs.

The shortage of personnel at reconstructed enterprises and other facilities during 1976-1978 amounted to 10 percent. This reflected the effects of the envisioned increase in the number of personnel according to plans for reconstruction of enterprises (10 percent) and other facilities (16.1 percent). The shortage of industrial production personnel in 1978 at enterprises that were newly constructed and expanded in 1976-1978 was in the range of 33 percent.

With 100 percent assimilation of fixed capital, the lack of balance between jobs and the number of workers at enterprises that were expanded if manifested more appreciably than at newly introduced enterprises (72-73 percent and 92 percent, respectively).

The difference in the indicators is explained by the fact that the increased shortage of labor resources, the expansion of enterprises (new areas of construction, new kinds of production), as a rule, is almost not accompanied by technical rearmament of existing production. Moreover, in the RSFSR as a whole and in many ministries the expansion was not sufficiently accompanied by the corresponding measures for training personnel. In order to improve the balance between the number of jobs that are created during the process of expansion of enterprises and the number of industrial production personnel, it is necessary for technical rearmament of existing production to precede expansion or to be combined with it.

During the years of the Ninth Five-Year Plan the elimination of the aforementioned lacks of correspondence would have made it possible to obtain gross additional output in the RSFSR as a whole: in 1975--9,116,000,000 rubles; in 1978--

3,553,000,000, and during the three years of the Tenth Five-Year Plan, in 1978--5,792,000,000 rubles. Calculations show that the proportion of the overall increase in the failure to produce gross output, including because of the inadequate rates of assimilation of the output of products, under the Tenth Five-Year Plan as compared to the Ninth Five-Year Plan, increased by the amount of gross output which was lost because of personnel shortages.

In recent years the problem of balance between jobs and labor resources has become especially complicated because of the demographic situation in the country. Under these conditions, the most important direction for improving the utilization of the created industrial potential is considered to be a scientifically substantiated system of planning existing production and new construction as a unified whole, in keeping with the decree of the CPSU Central Committee and the USSR Council of Ministers of 12 July 1979 concerning improvement of the economic mechanism. It is assumed that on the basis of raising the technical level of existing production, the released workers can not only staff existing enterprises, but some of them can be transferred to new, developing regions. The necessity and importance of giving priority to capital investments and new technical equipment for existing enterprises are confirmed by analysis of the possibilities and advantages of reconstruction.

Enterprises and other facilities for which reconstruction is planned, as a rule, do not have a high level of technical support or labor productivity. At such enterprises and facilities in RSFSR industry labor productivity is 25.7 percent lower than the planned level for new enterprises introduced under the Ninth Five-Year Plan and 26 percent lower than at those introduced during three years of the Tenth Five-Year Plan. It is 38.1 percent lower than the level at facilities expanded under the Ninth Five-Year Plan and 41.1 percent lower than those expanded during the three years of the Tenth Five-Year Plan. Because of the increased labor productivity, according to reconstruction plans the number of personnel envisioned for the planned level of output of products under the Ninth Five-Year Plan was 78 percent of the number that would have been necessary if the output had remained the same, and under the Tenth Five-Year Plan--86 percent.

The advantage of reconstruction as compared to new construction is manifested in the shorter amounts of time it takes and also in the assimilation of the planned capacities as well as other technical and economic indicators.

There are possibilities for accelerated reconstruction in the progressive structure of fixed capital that is created. The proportion of the so-called active part of fixed capital at reconstructed enterprises and other facilities under the Ninth Five-Year Plan, according to planning figures, is higher than at new enterprises that were put into operation during the same years by 22.8 percent and 42.3 percent, respectively; and at enterprises that were reconstructed during the three years of the Tenth Five-Year Plan, by 20.5 percent and 30.3 percent, respectively.

Additionally, reconstruction makes it possible, with limited capital investments, to provide for an increase in the output of products with less money, which contributes to balancing capital investments and jobs. This is confirmed especially

strikingly by comparing the value of a working position at enterprises that are new, expanded and reconstructed. Thus the value of a working position at enterprises that were reconstructed during the years of the Ninth Five-Year Plan increased from 12,100 rubles to 19,400 rubles (according to planning figures) and at other facilities--from 20,900 rubles to 28,600 rubles. During the three years of the Tenth Five-Year Plan this value increased from 19,300 rubles and 19,800 rubles, respectively, to 25,600 rubles and 27,700 rubles, respectively. And the planned value of a working position at new enterprises that were introduced in RSFSR industry as a whole and those that were expanded under the Ninth Five-Year Plan amounted to 44,800 rubles and 45,200 rubles, respectively, and during the three years of the Tenth Five-Year Plan--52,800 rubles and 53,800 rubles, respectively.

The time periods for the assimilation of planned capacities are conditioned largely by the level of perfection of the enterprises and other facilities that is achieved by the time they are put into operation. The advantage of reconstruction in terms of the rates of achievement of the planned average annual value of fixed capital is obvious. Completion of construction with the elimination of all incomplete jobs and the attainment of the planned level of average annual value of fixed capital during the years under consideration took place in 5-7 years for new enterprises, 3-4 years for expanded ones, and 2-3 years for reconstructed ones.

The positive aspects of reconstruction are also confirmed by the time periods for the achievement of the planned level of volume of production of the gross output, labor productivity and output-capital ratio (see Table).

Table. Economic Results of Reproduction of Fixed Capital in RSFSR (in % of planned level)

Form of reproduction of fixed capital	Results of measures taken in various years						
	Ninth Five-Year Plan				Tenth Five-Year Plan		
	1975	1976	1977	1978	1976	1977	1978
	Gross Output						
New construction	72.0	75.2	79.3	84.0	39.3	86.4	91.7
Expansion	93.8	96.6	98.4	99.0	93.0	87.5	93.8
Reconstruction	107.5	105.0	106.6	108.2	108.3	103.2	102.1
	Labor Productivity						
New construction	70.2	77.3	84.0	90.4	25.3	59.1	73.8
Expansion	97.3	104.3	109.2	113.2	79.1	90.8	101.4
Reconstruction	97.0	100.5	103.2	106.7	87.3	92.9	99.5
	Output-Capital Ratio						
New construction	75.0	79.2	81.3	84.4	32.1	50.0	59.5
Expansion	81.7	86.5	90.5	90.5	88.3	82.5	79.6
Reconstruction	96.5	95.0	90.5	94.0	82.0	87.0	87.6

A number of ministries have still not succeeded in meeting the requirement for giving priority to capital investments and new technology for technical rearmament and reconstruction of enterprises. Of the 30 union ministries that were investigated, under the past five-year plan as compared to the Tenth, only 10 (the Ministry of Heavy Machine Building, the Ministry of Chemical Machine Building, the Ministry of the Machine Tool Construction Industry, the Ministry of Construction, Road and Municipal Machine Building and also the ministries of the coal industry and nonferrous metallurgy as well others) achieved an increase in the proportion of reconstruction in the overall sum of reproduced fixed reproduction capital and gross output as a result of new construction, expansion and reconstruction of enterprises and other facilities.

In the RSFSR as a whole only one-fourth of the fixed capital that was put into operation went for reconstruction and technical rearmament. And reconstruction accounts for only about 10 percent of the capital that has been introduced.

Under the Tenth Five-Year Plan, as a result of measures taken in recent years to concentrate capital investments, the number of new construction projects has decreased. Additionally, the proportion of expanded facilities has increased, and in the overall volume of reproduced fixed capital and gross output for new construction, expansion and reconstruction, the proportion of the last in the RSFSR as a whole, according to planning data, has decreased during the three years of the Tenth Five-Year Plan (as compared to the Ninth).

The changes in the proportion of reconstruction are reflected most clearly in the final results of the given form of reproduction in the overall sum of increase in the gross output and the average annual fixed production capital as a result of new construction, expansion and reconstruction. While under the Tenth Five-Year Plan in the RSFSR as a whole the proportion of reconstruction in the overall increase in gross output amounted to 15.1 percent, and in the overall increase in fixed capital--10.9 percent, while under the Tenth Five-Year Plan it did not exceed 10 percent.

Reconstruction as a form of reproduction of fixed capital is especially important for industry under the jurisdiction of the RSFSR Council of Ministers. The most realistic method here is reconstruction with complete or partial replacement of old production shops with new ones, which makes it possible to introduce progressive technology and organization of production and labor.

An increased proportion of gross output and created average annual fixed production capital as a result of reconstruction under the Tenth Five-Year Plan was typical of the ministries of light industry, the textile industry, the food industry and others. In industry under the jurisdiction of the RSFSR Council of Ministers as a whole, the proportion of reconstruction, according to planning figures, increased as follows during the three years of the Tenth Five-Year Plan as compared to the Ninth: in the overall increase of gross output--1.5-fold and in the overall increase of fixed capital--1.2-fold, amounting to 15 and 16.5 percent, respectively, instead of 9.6 and 13.7 percent, respectively. But the level that has been achieved is still not high, which is also confirmed by the amount of equipment installed in 1979 (for ministries of the RSFSR) for replacement in the overall quantity of installed equipment. Replacement of discarded equipment accounted

for 26 percent (in value terms), and the rest of the equipment became part of the accumulated fixed capital. Almost 50 percent of the installed equipment was used for replacement at enterprises of the Ministry of the Construction Materials Industry, the Ministry of the Fuel Industry and the Ministry of Light Industry. A little more than half of it went for replacement at enterprises of the ministries of the textile, food and meat and dairy industries. Less than the average amount of equipment was updated at the enterprises of many ministries of the RSFSR, including: the Ministry of Local Industry--14 percent, the Ministry of Housing and Civil Construction--23 percent, the Ministry of the Automotive and Road Industry--24 percent, and the Ministry of the River Fleet--17 percent.

As analysis shows, with a relatively high level of updating of equipment, for example, in the light and textile branches, low rates of replacement are typical of those kinds of equipment which are used in the final stages of the processing and output of products. The final results of production, its increased efficiency and improved product quality depend mainly on them.

Thus the reproduction structure of fixed capital, despite a number of changes, is still not progressive enough. It does not fully take into account the possibilities of filling existing and created jobs, which requires correct control of this process.

In a number of ministries the low proportion of reconstruction in the increase of the gross output and the average annual fixed production capital impedes raising the technical level of existing production and retains the lack of coordination and bottlenecks in its units, and thus the level of utilization of capacities drops and it is more difficult to improve the conditions for the labor and life of the workers. The lack of balance between the planned capacity and the number of workers is correspondingly exacerbated. The difficulties in solving this problem are related to an underestimation of the role of the indicator of "number of working positions" in the system of planning and report indicators.

There is no single, generally agreed-upon definition of the concept "working positions" among economists. The definition that arises from the practice of planning enterprises and planning scientific organization of labor in associations (enterprises) is worthy of attention. Here a working position is considered to be the initial unit in the production process which is characterized by various indicators. They include: the kind of work and occupations, the type of production (mass, series, unit); the level of mechanization (manual, mechanized or automated work); the composition and quantity of technological equipment, and so forth. In our opinion, it is necessary to take a differentiated approach to creating working positions in basic and subsidiary auxiliary productions. While in the former the working positions are directly conditioned by the calculated capacity, in the latter they are conditioned by the level of specialization, cooperation and centralization of the corresponding services and productions in the associations (enterprises).

Thus a working position is characterized by the totality of technologically interconnected or individual operations (including manual) or functions that are performed by one worker of particular qualifications on one shift in a limited production space (or its equivalent) utilizing the necessary equipment, instruments, fittings and auxiliary devices.

The working position acts as a connecting link between production capacities, fixed capital and labor resources. In practice, the planned increase in output is provided for primarily through improvement, replacement and reduction of working positions. We are speaking about implementing measures to achieve a maximum level of utilization of existing capacities, and utilization of capital investments primarily for raising the organizational and technical level of production, increasing the shift coefficient of the operation of equipment to the normative indicator, and technically rearming and reconstructing existing enterprises in order to utilize more fully the created industrial potential for producing the final product and releasing industrial production personnel. Secondly, the increase is achieved through the creation of additional working positions for satisfying the needs for products and services which cannot be provided with existing production.

The working position is the object of planning of scientific organization of labor. Form 09-TP of the technical industrial financial plan for the production association (enterprise) reflects the various areas of scientific organization of labor. Measures carried out in this area exert a direct influence on the balance between fixed capital and labor resources. This is provided through the introduction of progressive technology, mechanization and automation of production processes (Form 07-TP); improvement of administration, planning and organization of production (Form 08-TP); the creation and assimilation of new and higher-quality products (Form 06-TP); capital repair and modernization of fixed capital, and other measures.

Although the working position is the object of planning, the enterprises do not keep quantitative accounts of the number of working positions for the various productions, shops, sections and other subdivisions. This weakens the link between planning and utilization of capacities and the planning of the number of industrial production personnel. One cannot give a complete evaluation of the measures that have been taken and planned for improving the working position or determine the existing reserves resulting from scientific organization of labor, improvement of production administration, the introduction of new technology or a higher level of mechanization. Under these conditions it is necessary to introduce into statistical accounting (the passport of the association or enterprise) indicators which characterize the number and value of the working positions.

The balance between existing and created working positions, on the one hand, and existing labor resources and planned capital investments, on the other, can be maintained on the basis of giving priority to capital investments in reconstruction and technical rearmament. Then the policy for calculating and substantiating the volumes of technical rearmament, reconstruction, expansion and new construction should also take into account the balance of existing, eliminated and created working positions and labor resources, which are calculated both for the report and for the planning (five-year) period with a breakdown for the various years. In our opinion, for the ministry this balance should correspond to the balance of labor resources for the various oblasts, krays and ASSR's. It would also be expedient when forming plans for capital investments to give priority to the allotment of financial, material and other resources that are used only for reconstruction, during whose course additional working positions will not be created. Otherwise this form of reconstruction must be regarded as expansion of the enterprises.

The problem of balance between fixed capital and labor resources cannot be resolved on the branch level of production administration alone. Therefore, in keeping with the new legislation and the decree of the CPSU Central Committee, the Presidium of the USSR Supreme Soviet and the USSR Council of Ministers, "On Further Increasing the Role of the Soviets of Workers' Deputies in Economic Construction," a great deal of attention is devoted to the territorial aspect of this problem.

In the work conducted by the soviets of people's deputies for providing for dynamic and stable development of the economy, an important place is allotted to providing for balance between fixed capital and labor resources. Local authority agencies resolve problems of increasing production, expanding the assortment and improving the quality of consumer goods, coordinating the production of local construction materials, protecting the environment and improving working conditions, raising the general educational and cultural level of the population, improving the housing-domestic and medical services, providing occupational and technical training and labor placement for youth, accounting for distributing and efficiently utilizing labor resources, and so forth.

Balance between the number of working positions in existing and created associations (enterprises) in the oblast, kray and autonomous republic, on the one hand, and existing labor resources and planned capital investments, on the other, is provided on the basis of developed balances of labor resources, limits on numbers of workers that are established for the associations (enterprises) and the selection of an investment program that corresponds to the interests of the region's development.

The tasks set for the soviets of people's deputies and local planning agencies require analysis, accounting and planning of labor resources for the various enterprises. Additionally, local planning agencies must study more deeply the migration of labor resources from the cities into rural areas, and also from one branch of the national economy into another. When drawing up the planning balance, in addition to accounting for the natural increase, they must also pay attention to those labor resources which could potentially be released as a result of the implementation of measures for raising the technical and organizational level of production, its specialization and cooperation, centralization of the production infrastructure, and so forth.

In order to provide for balance between existing and newly created jobs, on the one hand, and labor resources of the oblast, kray or autonomous republic, on the other, and efficient utilization of labor resources in local areas, the aforementioned decree envisions work for coordinating the drafts of plans for the limits of numbers of workers and employees and control over their observance. This kind of work is already being done in Yaroslavl'skaya, Vladimir'skaya and other oblasts. The experience that has already been accumulated should be disseminated to all oblasts, krays and ASSR's.

Reserves of labor resources can be found in any branch of the national economy. Therefore associations, enterprises and organizations, regardless of their departmental jurisdiction, should preliminarily coordinate the increase in the number of workers and employees earmarked for the planning period with the planning commissions and labor divisions of the oblispolkom, krayispolkom and ASSR council of

ministers. To do this, the planning commission of the oblast or kray ispolkom or the ASSR Gosplan sends to the enterprises (organizations) of the oblast, kray or autonomous republic, along with the draft of the plan for social and economic development, a developed form of the draft of the plan for the year and five-year period for limits of the numbers of workers and employees in all areas of the activity of the association (enterprise). The documents are signed by the management of the enterprise and submitted to the oblast or kray ispolkom or the ASSR council of ministers. Here labor divisions analyze the availability and utilization of the labor force, and determine the possible increase in the number of workers and employees for the corresponding region as a whole, and this is taken into account when considering the plans for the limits on numbers of personnel for associations, enterprises and organizations.

If during the course of this work it becomes clear that it is impossible to coordinate the number of jobs with the labor resources, individual enterprises must set additional tasks for releasing workers based on an analysis of the condition of the organizational and technical level of production, the reproduction structure, and so forth. This pertains primarily to those enterprises that envision an increase in the number of jobs. At these enterprises the possible increase in the number of jobs must be reinforced by the development of measures for releasing workers and an analysis of the production situation, which will result in making up for the shortage of workers and providing for filling all the newly created jobs with personnel. The planning commission (committee) draws up a balance account of the additional need for workers and employees and the sources of filling this need in the region. After the oblast or kray ispolkom or ASSR council of ministers has verified the substantiation of these reports, they approve the guidelines for coordinating the upper limits on the numbers of personnel, and the planning commission (committee) sends it to the corresponding enterprise and organizations.

On the basis of the limits on the numbers of workers and employees that have been approved by the ministries and departments, the labor division of the oblast or kray ispolkom or the ASSR council of ministers organizes control over the number of workers and employees at the associations, enterprises and organizations, conducts systematic analysis of the utilization of the existing labor force, and prepares proposals for the planning commission of the oblast or kray ispolkom or the planning committee of the ASSR concerning a possible reduction of the need for labor force at the associations, enterprises and organizations. When there are above-plan numbers of workers in individual associations or enterprises, the labor divisions of the city (rayon) ispolkom and other authorities draw the attention of the managers to this and, if necessary, send the corresponding communication to the rayon divisions of the Gosbank. Subsequently, if the situation does not change, information about cases of above-plan numbers of personnel is sent to the ministries, departments and the oblast office of the Gosbank as well as the RSFSR State Committee for Labor and Wages.

One of the tasks of the local planning commissions and planning committees is to supervise the reduction of the use of manual labor in the associations (enterprises) and organizations.

The enterprises and organizations develop target programs (with a breakdown for the various years) for reducing the use of manual and heavy physical labor. This is a system of scientifically substantiated socio-economic and organizational-technical measures. The planning commission of the oblast or rayon ispolkom or the planning commission of the ASSR receives and generalizes the measures that have been submitted by the enterprises and organizations.

The labor division of the oblast or kray ispolkom or the ASSR council of ministers exercises control of the fulfillment of assignments for reducing manual labor and implementing the target program which is developed on the basis of these assignments at enterprises and organizations.

Workers released from manual labor can be redistributed within the enterprise or placed at other enterprises or organizations under the established policy.

The essential element of the work that is being done for efficient utilization of labor resources, as the work experience in Yaroslavskaya Oblast shows, is analysis by the labor division of drafts of the plan for increasing labor productivity in the various branches and the most important enterprises and associations under local jurisdiction. The conclusions drawn from the results of this analysis are sent to the planning commission (committee). Additionally, they analyze the fulfillment of current annual and five-year plans for increasing labor productivity in terms of individual factors and other planning indicators concerning labor. Based on this, proposals that contribute to the fulfillment of planned assignments are prepared for the oblast or kray ispolkom. From the results of this work, the corresponding associations (enterprises) and organizations develop measures for mobilizing reserves for increasing labor productivity, and the oblast or kray ispolkom exercises control over the development of these measures. The measures that are developed include: the introduction of scientific organization of labor, improvement of norm setting and improvement of working conditions, reduction of losses of working time and labor turnover, improvement of personnel training, and so forth.

The work for releasing industrial production personnel in some branches with the goal of transferring them in a planned way to other branches of the national economy in order to make up for shortages of personnel is only one of the measures directed toward achieving a balance between labor resources and jobs. Workers can be transferred and reassigned only when the housing problem is solved and the social conditions for labor, living and recreation are improved.

In our opinion, the activity of local agencies which has been considered in fairly great detail is of great importance. It is directed, in the final analysis toward solving the problem of achieving a balance between jobs and labor resources at all levels of administration of the national economy. It creates favorable possibilities for efficient utilization of fixed production capital, will contribute to achieving good results from capital investments, and will increase the return from the industrial potential.

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LABOR

THEORETICAL VIEWS OF LABOR, SKILLS, OCCUPATION REVIEWED

Moscow EKONOMICHESKIYE NAUKI in Russian No 12, Dec 81 pp 20-31

[Article by Professor V. Belkin, doctor of economic sciences, and Ye. Belkin, candidate of economic sciences: "Labor: Qualifications; Profession; Nature and Content"]

[Text] The materials of the 26th Congress of the CPSU gave a theoretical and political substantiation to the key problems of the improvement of social relations and indoctrination of working people under conditions of mature socialism. Considerable attention was devoted to socialist labor — the main sphere of essential activity of Soviet people — and to questions of transforming it into the first necessity on the basis of consistent and planned improvement in the established economic mechanism and working out and interpreting the appropriate aspects of theory and practice. "The challenges which life poses," Comrade L. I. Brezhnev said at the congress, "demand the development of theory, of economic science, and bringing it closer to the needs of economic practice. We need to mobilize the creative potential of our entire society. In the center and in the local areas, in all elements and cells of the national economy there should be a growing understanding of the problems that are arising and existing opportunities should be identified and used better."¹

Under contemporary conditions the possibilities of planned increase in production volume and raising labor productivity are determined not only and not so much by increasing the volume and power of means of production per worker as they are determined by improving worker knowledge, skills, and labor activism.² It is precisely these factors that determine how completely the existing scientific-technical potential is used. K. Marx observed that "the accumulation of skill and knowledge (scientific strength) by the workers themselves is the fundamental type of accumulation and is incomparably more important than accumulation of existing objective conditions for this accumulated activity, which goes hand in hand with it and only reflects the principal kind of accumulation."³ Marx considered the level of the worker's skill paramount among the factors that determine the productive force of labor.⁴

Many monographs have been written on the problems of labor and developing the labor activism of workers. Although they differ in the breadth of coverage of their issues, nonetheless they make it possible not only to show the complex

interrelationships and mutual causation of different processes within the framework of the subject matter under study, but also to identify the key issues which relate to the specific and essential features of the most important concepts, categories, and terms being put into scientific circulation. But this aspect clearly remains debatable. Disputes are still being waged over the correct understanding of such terms as worker qualifications (skills), occupation, the nature and content of labor, as well as what characteristics distinguish a highly skilled and broadly trained worker and other similar matters.

We also cannot overlook the fact that certain problems that have in principle been solved by theory have not been appropriately realized in practical activity. Specifically, the dependence of raising the level of efficiency of the production process on raising the skill level of the workers is now recognized as an objective law. Nonetheless, when planning growth in labor productivity by factors, analyzing the socioeconomic activity of labor collectives, or evaluating the impact of some particular measure, neither the level of available skills nor the degree of utilization of workers in conformity with this level is ordinarily taken into account; the labor balance sometimes fails to consider the real need for workers with different qualifications. This situation is partly explained by the fact that economic science has not yet carried through its established principles to the point of practical introduction and practical workers do not have sound methods for quantitative consideration of the degree and dimensions of the influence of skills on the final results of work. Moreover, we lack a precise and generally accepted definition of the very concept "kvalifikatsiya" [qualifications, skills].

The literature offers highly conflicting statements on the concrete development of the processes involved in raising the skill level of workers. According to some figures the proportion of skilled workers in industry was 67.9 percent in 1959 and 75.2 percent in 1975, while the corresponding figures for lowly skilled personnel were 12.6 and 10.8 percent and the proportions for unskilled workers were 19.5 and 15.0 percent.⁵ According to other figures, during this same time interval the proportion of skilled workers in industry from 73.1 to 85.7 percent, while the proportion of lowly skilled and unskilled workers dropped from 26.9 to 14.0 percent.⁶ There are even figures which indicate that in the same time period the proportion of skilled workers in industry increased from 72.4 to 84.3 percent, while the proportion of lowly skilled and unskilled workers declined from 47.6 to 15.7 percent.⁷

Some researchers, by contrast, point to the fact that in the stage of initial automation there is usually a certain simplification of the labor functions of workers in some common occupations (lathe and equipment operators and the like) and even a decline in their skills in comparison with the skills of lathe operators using standard, universal equipment.⁸ These authors are inclined to think that with the large-scale transition to universal automation in the future there will be "mass social transformations of a declining character," chiefly at the expense of today's skilled and highly skilled workers.⁹

It appears that these different readings are largely the result of an ambiguous approach to the actual definition of the concept of "skills."

The most common meanings of the term skills are the ability of a person to perform labor of a certain degree of difficulty, the possession by the worker of the characteristics necessary for this, and the level of preparedness for a particular type of labor activity. Some authors define skills as a quantitative characteristic of labor, the aggregate of physical and mental capabilities for labor. They argue that the concept of the skills of the labor force includes two elements: "objective (labor from the standpoint of the difficulty of its performance) and subjective (the capability of the person for labor"¹⁰

Some economists believe that "skills are a quantitative characterization of the occupation"; the term expresses the level of theoretical knowledge, production experience, and practical abilities of the worker. Unlike occupation and specialization, which are defined chiefly by the area of application of the worker's labor, according to this point of view the term skills expresses the complexity of the labor, while the skill level reflects the volume of knowledge and experience. The division of labor into skilled, lowly skilled, and unskilled follows from this given the contemporary production-technical base.¹¹ There are also more specific definitions according to which the term skills refers to a definite, specific group of subjective factors, experience, knowledge, ability, and habits which make up the typical characteristics of the labor force. Based on this V. R. Polozov observes that the term skills of the labor force is "incompatible with the specific content of skills inherent in other types of labor and occupations; it is just as incompatible as the concrete types of labor activity themselves are."¹²

It appears that the concept of skills must be approached through an analysis of the basic directions of scientific-technical progress and the development of engineering and technology. Then the content of this concept will not be stable. It will change under the influence of scientific-technical transformations, but in such a way that the role of general educational and specialized training rises while the requirements for volume and diversity of professional skills, without losing their importance, nonetheless decline.

Because training and skills are inseparably linked, the latter, as the continuing result of earlier labor, are an inalienable part, an attribute of that labor force whose carrier has received the appropriate training and during it attained a certain level of development of abilities. "The art of the worker is developed by the worker's function itself."¹³ Therefore, the level of skills is determined not only by the knowledge, abilities, and experience of the worker, but also by the set of typical labor functions in his activity, their complexity and diversity. The combination, sequence, and conditions of performance of labor functions are the objective factors which determine the essential level of skills. In other words, engineering and technology dictate their requirements for the level of development of the labor force, its skills, and its labor activism through the functional content of labor.

In general the concept of skills can be considered in two aspects: for one, as an indicator that determines the extent to which the worker has mastered the appropriate range of jobs and operations, and for two, in the broad sense of the

word, as an indicator that characterizes the qualitative level of development of the labor force, its capability for labor, determined by socially necessary expenditures of working time to prepare for the labor activity. It is necessary here to consider that there is some difficulty in estimating and accounting for socially necessary expenditures of labor to prepare the aggregate worker; their quantity is not of equal economic value because it depends on the length of training, its nature, and the complexity of the labor of different categories of trainees.

The concept of skills is a relative one. For example, a skilled worker employed chiefly in manual labor is distinguished by his level and degree of labor activism from the skilled worker engaged in mechanized and automated labor. This makes it even clearer why "the party and the state have applied and continue to apply great efforts to make the labor of a person not only more productive, but also more meaningful, interesting, and creative. And the key role in this is to be played by eliminating manual, lowly skilled, and heavy physical labor. Millions of people in our country today are still engaged in such labor. This is not only an economic problem, but also a major social problem. To solve it means to eliminate substantial obstacles in the way of making labor a paramount need of every person."¹⁴

We must dwell on the terminological inaccuracy, quite often encountered in the economic literature, with respect to use of the term skills. With rare exceptions, when the subject of discussion is specific features of labor processes, trends toward change in them, and problems of improving the occupational-skills composition and structure of workers, the terms "skilled," "lowly skilled," and "unskilled" labor are employed. Such definitions appear incorrect both from the standpoint of theory and from the standpoint of practical interpretation of theoretical principles and categories. Labor as such does not have skills. It is not accidental that the classics of Marxism, while evaluating the qualitative side of labor processes in different ways, most frequently divided labor into simple and complex. For this reason the qualitative aspect of the labor process and of labor activity is characterized by the complexity of the job being done, its specific characteristics. These characteristics in turn determine the existence and structure of requirements made of the actual worker, the level of his vocational and general cultural preparation and, therefore, his skill level. Therefore, the term "kvalifikatsiya" should be used only in connection with the performer of a definite job, with a person engaged in the process of producing material goods and nonmaterial benefits.

Other definitions are also frequently encountered. For example, A. A. Veykher, studying the questions of reduction of labor, states that "unskilled labor, in direct contrast to skilled labor, is defined as labor whose performance requires no special training, in other words, it does not presuppose any other expenditures of productive labor except those involved in the labor process itself."¹⁵ Continuing, the author contradicts his own statement when he writes that "any concrete labor is always done in a definite form, that is to say it is skilled labor, because it requires preliminary instruction, explanation of the rules of work, safety precautions, and the like. Each such event, if it is done once as an introduction to the work at the given work position and is not an explanation of the next assignment, is essentially special training."¹⁶

This contradiction is characteristic of most of the works devoted to the theory and methodology of social labor under conditions of developed socialism. The essential point of it is related primarily to an incorrect interpretation of simple labor. K. I. Kurovskiy is correct when he says that "Simple labor is the labor of a worker who has received minimal preliminary preparation and has the lowest level of skills in the particular society, which is manifested in the least complex type of labor."¹⁷ The same author notes correctly, in our opinion, that an incorrect interpretation of the category of simple labor partially explains the inaccuracies that occurred in earlier times in translations of the corresponding sections of K. Marx's "Das Kapital." In the publications of 1949-1955, for example, "simple labor" is interpreted as the expenditure of simple labor force which is usually possessed by the physical organism of every ordinary person without any special training.¹⁸ But in the second edition of the classics of Marxism-Leninism, "simple labor" is defined as the expenditure of simple labor force usually possessed by the physical organism of an ordinary person not distinguished by special development.¹⁹ It appears that this means that a worker engaged in simple labor has that level of development which enables him to acquire the lowest level of skill with the minimum necessary training for the given society. But as K. Marx stressed, "Every average individual can be taught" simple labor.²⁰ Continuing, K. Marx cites a special footnote in which he points to the error of English economists of the day in equating the categories of simple and untrained labor, because that labor which practically any able-bodied member of society can be trained to perform cannot be called untrained labor. The use of the term "unskilled labor" by the classics of Marxism apparently can be explained by the conditions and specific characteristics of the period in which they lived. In the age of K. Marx, considering the degree of development of capitalist production, simple labor demanded so little training that a worker employed in such labor activity could be called practically unskilled. But K. Marx certainly did not deny the reality of expenditures to train simple labor force, emphasizing only that these expenditures are "absolutely negligible."²¹

The contemporary phase of social development with the features that characterize it is making corrections in our view of the problem of skills. One of the aspects of the problem is that today it appears impossible to find any kind of labor activity that requires absolutely no preparation or preliminary training. In our opinion, the assignment to perform any job must be put in the form of detailed instruction and will also involve later checks on correct performance of the assigned work. In turn, the period of performance of a certain job, no matter how short it may be, promotes the formation of an appropriate dynamic stereotype in the performer, in other words, the formation and reinforcement of a corresponding habit. Preliminary instruction and later checks on the correct performance of the particular job are, of course, component elements of skills. The general education which a large majority of the able-bodied members of society possess is another such component. In view of these things, we cannot agree with the conclusions that "use of the term 'unskilled worker' distorts the real situation and underplays the results of that truly vast work being done in our country to increase the activism of the entire population."²² Another equally important aspect of the problem of skills is the fact that owing to the steady rise in the proportion of educated and professionally trained

workers in the total able bodied population and the need to insure high efficiency and quality results from their labor under contemporary conditions, it is advisable to orient ourselves to following the principles of more rapid development of working people in comparison with the rate and conditions of development of the social and production environments.

There is no uniformity of opinions on this issue either. For example, Hungarian researchers consider it a mistake to try to give workers education which is outside of their reality and, in terms of its level, significantly exceeds the requirements of a developing economy. This view is also supported by the argument that only knowledge which is used in practice will be successfully remembered for any significant length of time. At the same time, providing a certain reserve of knowledge in fact means creating a corresponding reserve of skilled labor force. If this reserve is so large that it is hard to place workers in jobs given the level of development of technology and the organizational structure of society, the "capital investment" in human beings is being used wastefully and the number of persons dissatisfied with their jobs increases.²³

In other scientific publications the problem of insuring the necessary correspondence between the level of development of skilled labor force and the level of development of available means of production rarely goes beyond the objective economic law.²⁴ It seems to us that this correspondence in no way acquires the character of a law; it is a particular aspect of development, and far from the basic pattern.

The truth of this statement can be shown by logical analysis. Suppose that the level of training and education of workers falls behind the rate of development of technology. Then it will inevitably become a retarding factor, slowing down scientific-technical progress and making its efficiency more difficult to realize. The appearance of fundamentally new technical advances will be accompanied by incomplete and inefficient utilization of them in the direct practical activity of the workers who lack general and vocational knowledge. The greater this lag is, the longer it will take to incorporate new machinery and technology. But if a correspondence is maintained for a long time between the level of training of the available labor force and the level of technical equipping of production already attained, the influence of the retarding factor of the training and general educational level of the direct performers of work will remain unchanged. Thus, we cannot accept the view of those researchers who reduce this problem to insuring a simple correspondence between the level of technology already attained and the scope of educational and vocational training of the working people (with the exception of scientists, designers, and certain other limited groups of specialists).²⁵

This opinion, which considers the preservation in our national economy of a significant amount of heavy, physical manual labor, in practice represents a refusal to step up the pace of general and vocational education, in particular a rejection of compulsory universal secondary education for young people. We cannot agree with this. On the methodological level, it is unconditionally mistaken to figure only from the contemporary level of scientific-technical progress and ignore its rate, trends, and prospects. Also we must not

underestimate the complex and diverse relationships between general and vocational education which make the former an essential condition and foundation for acquiring the latter. Finally, it is extremely important to realize that the quality of worker training, its volume and nature, must be in relative correspondence not only with machinery and technology, but also with the socio-economic and political tasks being carried out in the society, in particular with the tasks of improving the economic mechanism, involving working people in management, and so on.

"Strengthening the leading role of the working class," Comrade L. I. Brezhnev emphasized, "is unquestionably linked to raising their ideological-political maturity, level of education, and vocational skills. The very nature of labor for the contemporary worker is changing. This labor increasingly has intellectual content."²⁶ The development of labor activism and growth in the education and skills of workers in socialist production are also expressed in a broadening of the scope of vocational training for labor. The breadth and narrowness of specialization depend on the volume and content of the job typical for a worker of the particular occupation in a certain phase of technological development, on the level of preparedness of the worker for the particular job, and on the specific requirements made by the operations. A great deal that is unclear is still found in the interpretation in the literature of the process of broadening specialization of workers. Specifically, in our opinion, the generally accepted term "broadly qualified occupation" ["professiya shirokogo profilya"] incorrectly reflects the true state of things. Use of the term "broadly qualified" can and should be coupled only with the worker himself, not with his occupation or specialization, because the latter are the production "rank" of a person employed in a certain sphere of activity.

The process of shaping the broad qualifications has two aspects: the quantitative, which is determined by the diversity of the work done by a worker with the appropriate qualifications within his functional group and outside it; and, the qualitative, which is characterized by the complexity of performing particular industrial operations and the level of activism of the performer. In turn, the content of the concept of "broad qualification" is determined by the set of qualification requirements for a worker in the particular occupation, encompassing the entire technological process of producing the particular product and expressing an expansion of the service zone in sections that are similar with respect to technology.

From the standpoint of contemporary technical development, the narrowly qualified production worker is the one usually engaged in performing simple manual and mechanized jobs and who, as a result of this, has a fairly minimal reserve of knowledge and practical skills and a low level of labor activism. But the labor of broadly qualified workers includes performance of functions that are characteristic of representatives of several allied occupations and specializations which are significantly similar in content of labor activity or different types of occupations which, taken together, insure servicing and operation of automated sets of industrial equipment. In machine building, for example, the adjusters of automated lathes, aggregates, and automatic lines and mechanics for monitoring and measuring instruments and automatic devices are such workers. In the chemical industry they are equipment operators, while in mining they are

the miners at the working face, and so on. It would seem that working up a precise list of broadly qualified workers in the leading sectors would make it possible to create conditions for keeping statistics on them and analyzing change in their numbers, forms of vocational training, and improvement in skills.

In general terms, the objective process of expansion of production qualifications is based on two interrelated and interdependent factors: attaining a certain high level of scientific-technical development and qualitative improvement in the main productive force of society, developing high labor activism in it. Instilling this activism presupposes that workers will go through several phases in mastering their jobs: initial training, which includes primary labor habits; incorporating knowledge and primary habits that have been received and accumulating initial labor experience; additional special training; applying supplementary knowledge, studying progressive practices, and selecting the best labor habits and techniques; additional general educational and specialized training in jobs both for the particular functional group and other related groups; implementing the accumulated knowledge and skills under the conditions of production activity.

The development of labor activism is in large part dependent on the performer of a particular job possessing the appropriate vocation or specialization. But this activism may be manifested both within the framework of a specific occupation (specialization) or beyond it. We must point out that many scientific publications mix the concepts "occupation" ["profesiya"] and "specialization" ["spetsial'nost'"] so that when they should be talking about "specialization" they often say "occupation," and vice versa. In this connection we should emphasize that the occupation is chiefly the worker's rank which defines his affiliation with a definite type of labor activity that, in its turn, is characterized by how it acts on the object of labor (implements of labor, industrial process) or by the subject of labor. The content of an occupation is determined by all the theoretical knowledge and labor habits necessary for the specific labor, which are acquired by the worker in the process of general and specialized education and from practical experience. An occupation is characterized by a relatively constant group of activities which encompass the entire range of labor activity of the particular person in the corresponding time interval. The specialization is a concrete determination of an area of activity within the particular occupation. The content of a specialization is characterized by the same basic distinctive features as an occupation, but it is defined chiefly by detailed, unitary division of labor, that is, division of labor within the particular enterprise. Therefore, taking the classification of division of labor into general, particular, and individual as proposed by K. Marx, we can assume that the concept of occupation arose in connection with the particular, while the concept of specialization came from the individual division of labor in society.

Under conditions of developed socialism, production is characterized by highly dynamic labor processes that are becoming more complex. Profound changes are also observed in the labor resources of society: the level of employment of the able bodied population is rising, the ratio among sources of labor force for the

national economy is changing, and new trends are appearing in the composition of working people and their vocational-skills structure.

Young people are becoming the basic and absolutely predominating source for meeting the need for workers. But with the implementation of universal secondary education and the development of other forms of education, the proportion of persons taking leave from their primary activity in order to study within the total population continues to rise. Accordingly, the proportion of young people employed in production is declining, which can and must be compensated for by a rise in the level of their labor activism and creative output.

Young people entering a working life are not adequately oriented to jobs in the common occupations. On the contrary, as the findings of many sociological studies testify, they are increasingly oriented to creative, intellectual specializations. This further emphasizes the timeliness of continued effective development of the issues related to raising the intellectual content and meaningfulness of labor. Solving this problem presupposes, however, clarity about what the "content" (and also the "nature") of labor is. At the present time there is no such clarity, and these terms are used in the scientific literature with many different meanings.

Many researchers take the content of labor to mean the set of relationships that form and define the purposeful activities of people.²⁷ Other authors define the content of labor as the set of labor functions of a worker, viewing them from the standpoint of quantitative and qualitative definition.²⁸ Sometimes, changes in the structure of labor processes such as, for example, mechanization and automation, substitution of machine labor for manual labor and mental labor for physical labor, and so on, are related to indicators that characterize the corresponding changes in the nature of labor activity, but not its content.²⁹ The category "nature of labor" is also used in a political economic context during consideration of the social form of labor activity and the system of production relationships in society, as well as a production-technical aspect with reference to mechanization, creative attractiveness, and the occupational characteristics of labor.

To distinguish these concepts correctly we must refer to the statement by V. I. Lenin that labor itself is not as such a political economic category, but only its social form, the social organization of labor, and the relations among people with respect to their participation in public labor for the common good.³⁰ From this point of view, obviously, "the nature of labor should be understood as referring to the type of social organization of labor and the attitude of members of society toward labor."³¹ Social organization of labor and its type, in turn, are determined by the specific features and method of combining workers with means of production, existing forms of division and cooperation of labor, the manner in which isolated types of labor activity are included in social labor, and the interrelationship among particular types of labor. This is exactly why "the nature of labor expresses the socioeconomic aspect of labor activity, which is determined by the system of production relationships."³² In other words, the nature of labor expresses the links and relationships between the labor of the entire society and the labor of each individual producer

of material goods and nonmaterial benefits. But the nature of labor as a social phenomenon develops not only in connection with change in production relations, as is sometimes thought, but also within the limits of a given socioeconomic system. Under conditions of developed socialism change in the nature of labor is increasingly manifested by its achieving complete social homogeneity, furthering the process of planned management of labor, further collectivization of labor, and the development of socialist labor into communist labor.

Improving the content of labor, both its technological and social elements including the conditions of labor activity, its attractiveness, organization, and the possibility for a worker to change functions and spheres of activity, promotes change in the nature of socialist labor and a gradual transformation of it into a paramount need.³³ In turn, change in the content of labor, which gradually influences the transformation of its nature, directly determines the development of socialist production relationships. The process of change in the content of labor also has an objective character because it results from the development of society's production relations, including the main productive force, the working person. This interdependence makes it necessary to use scientific-technical advances for raising the technical level of labor and to raise the educational level and cultural-technical preparation of workers who are capable of mastering new technology and scientific ideas.

Progress in the content of socialist labor involves changes in the occupational and skills composition of workers in the common occupations. We are today observing a transition from the narrow occupations that were formerly based on manual labor processes to broad occupations involving mechanized labor based on thorough knowledge of the latest advances of science and technology. This testifies to significantly greater production complexity and an increase in the proportion of complex labor that requires skilled workers. Thus, the division between the functions of the specialist and the worker, between mental and physical labor, will be erased right at the work position. This factor causes corresponding changes in the organization of labor and methods of strengthening labor discipline and intensifies creative elements in labor.

The basic step in identifying the features that characterize the content of labor is to define the primary elements of its structure. K. Marx wrote that under conditions where capitalist production relations predominate, "machine labor, seizing the nervous system, suppresses the multifaceted play of the muscles and deprives a person of any possibility of free physical and mental activities. Even making the labor easier becomes a means of torture, for the machine does not free the worker from labor, but rather takes all content out of the labor."³⁴ The content of labor activities is characterized above all by a certain combination of mental and physical activity, specific procedures and habits which differ for different types of labor activity and depend on socioeconomic and production-technical conditions in which the labor is performed. The specific features of any labor process are directly or indirectly linked to the characteristics of the sector of production, the machinery and technology employed, and the organization of production and labor. This means, in particular, that one of the features of the content of labor is occupational

characteristics. For example, there are very significant differences in the job descriptions of 4th and 6th class adjusters, but a certain part of the labor duties of workers in this occupation is still similar in content.³⁵ This illustrates that the occupation defines a significant proportion of the content of labor as concrete labor.

Some authors are inclined to think that the content of labor activity is determined by the skill characteristics of the worker in addition to the occupation.³⁶ We cannot agree with this statement. It would mean that if workers with different skill levels were performing the same job, the content of the job would be different. In reality, the content remains the same and the only things that differ are the quality of the jobs done, the percentage of fulfillment of norms, labor productivity, and the like. In other words, there is an inverse relationship: the content of labor does not depend on the skills of the performer, but rather the latter is determined by the content of labor, its complexity.

The mutual relationship between the concepts of the "nature" and "content" of labor is identical to the unity and diversity of form and content. We know that the content of any phenomenon is found in the process of constant development, whereas the form remains relatively stable for a definite, often quite long, period of time. Change in the form of labor occurs on the condition that corresponding quantitative changes accumulate and it represents nothing else but a transition from one qualitative state to another. Therefore, change in the nature of labor presupposes above all the transition to another qualitative state, the appearance of new ways of combining labor force with means of production, interaction of participants in the production process, and motives to labor and its goal. These kinds of changes are caused by the establishment of new production relationships. This is the result of many circumstances, one of which is further refinement of the organization of labor.

Socialist production relationships provide room for the development of creativity in labor, for merging mental and physical labor, and for fuller and more efficient participation by working people in the management of production and all life of society. The broadened rights of working people to manage production defined by the Constitution of the USSR are an expression of growth in their social-production labor activism. The accountability of workers for the results of economic activity should be viewed in the same context. Emphasizing the social significance of this factor, V. I. Lenin wrote of the necessity that each conscious worker "feel not only that he is the master at his plant and a representative of his country, but also that he feel his personal responsibility."³⁷ In this statement V. I. Lenin saw responsibility as the "basic principle of management."³⁸

Elements of production relationships which characterize the communist society in its highest phase of development are appearing and developing within the socialist order. Development of the social and labor activism of the working people is the key factor here, leading to progressively greater manifestation and stabilization of communist relationships. This emphasizes further the timeliness of research on the contemporary state and prospects for development

of social labor under socialism and studies to identify new factors and means that promote enrichment of its content.

In the concluding part of his talk at the November 1981 Plenum of the CPSU Central Committee Comrade L. I. Brezhnev pointed out that we must emphasize "a simple thought. It applies to everyone, no matter what positions they hold and where they work. We must work better. Write better plans and carry them out better. Organize production better and produce better. In short, work more efficiently. Ultimately, comrades, this is the paramount and decisive thing."³⁹

All political economic research, including studies in such a leading field as the relations that are taking shape in social labor, must be subordinated to carrying out this "paramount, decisive" demand.

FOOTNOTES

1. "Materialy XXVI S'yezda KPSS" [Materials of the 26th Congress of the CPSU], Moscow, 1981, p 51.
2. In our opinion, labor activism is an endeavor to fulfill and overfulfill established norms and assignments, employing such methods as combining occupations and functions, operating large numbers of machines, mastering advanced procedures and methods of labor, and participating in socialist competition. Labor activism and creative activism are not the same. The creative activism of a worker is his activity that aims at introducing new elements not used earlier in the labor process and finds reflection, specifically, in a rise in the number of efficiency proposals and inventions and the resulting rise in production efficiency and labor productivity.
3. K. Marx, and F. Engels, "Soch." [Works], 2nd ed, vol 26, part III, p 276.
4. See *ibid.*, Vol 23, p 48.
5. See V. P. Korchagin, "Trudovyye Resursy v Usloviyakh Nauchno-Tekhnicheskoy [Labor Resources Under Conditions of the Scientific-Technical Revolution], Moscow, 1974, p 63.
6. See A. A. Bulgakov, "Professional'no-Tekhnicheskoye Obrazovaniye v SSSR na Sovremennom Etape" [Vocational-Technical Education in the USSR in the Current Phase], Moscow, 1977, p 86.
7. See N. I. Dumchenko, "Soderzhaniye Podgotovki Kvalifitsirovannykh Rabochikh v Srednikh Proftekhuchilishchakh" [The Content of Training of Skilled Workers at Secondary Vocational-Technical Schools], Moscow, 1975, p 88.
8. See R. K. Ivanova, "Nauchno-Tekhnicheskaya Revolyutsiya i Yeye Vliyaniye na Izmeneniye Kharaktera Obshchestvennogo Truda" [The Scientific-Technical Revolution and Its Impact on Change in the Nature of Social Labor], Moscow, 1976, p 35.

9. See N. A. Aitov, and S. F. Yeliseyev, "The Scientific Technical Revolution and Change in the Social Structure of the Working Class in the Developed Socialist Society," *RABOCHIIY KLAS I SOVREMENNIY MIR*, 1975, No 1, pp 140-141.
10. See, for example, "Kolichestvennyye Metody v Sotsiologii" [Quantitative Methods in Sociology], Moscow, 1956, p 281.
11. See, for example, V. F. Bogachev, and M. P. Zelenin, "Qualitative Changes in the Content of the Labor of Industrial Workers," *UCHENNYE ZAPISKI VNII PROFTEKHOBRAZOVANIYA*, Leningrad, 1970, p 62.
12. V. R. Polozov, "Sotsial'no-Ekonomicheskaya Struktura Obshchestvennogo Truda pri Perekhode k Kommunizmu" [Socioeconomic Structure of Public Labor During the Transition to Communism], Leningrad, 1970, p 49.
13. Marx and Engels, op. cit., vol 25, part I, p 330.
14. "Materialy..." op. cit., p 57.
15. A. A. Veykher, "Slozhnyy Trud" [Complex Labor], Leningrad, 1978, p 35.
16. Ibid., pp 35-36.
17. K. I. Kurovskiy, "Problema Izmereniya Kachestva Truda" [The Problem of Measuring the Quality of Labor], Moscow, 1977, p 23.
18. See K. Marx, "Kapital," Moscow, 1955, vol 1, p 51.
19. Marx and Engels, op. cit., vol 23, p 53.
20. Ibid., vol 13, p 17.
21. Ibid., vol 23, p 183; vol 46, part I, p 279.
22. P. F. Petrochenko, "Vliyaniye Nauchno-Tekhnicheskogo Progressa na Soderzhaniye i Organizatsiyu Truda" [The Influence of Scientific-Technical Progress on the Content and Organization of Labor], Moscow, 1975, p 208.
23. See Yu. Venieg, Ye. Yozha, and L. D'yetvan, "Struktura i Mobil'nost' Rabochey Sily" [The Structure and Mobility of the Labor Force], Moscow, 1978, p 24.
24. See, for example, "Sotsial'no-Ekonomicheskiye Problemy Rabochey Sily pri Sotsializme" [Socioeconomic Problems of the Labor Force Under Socialism], Leningrad, 1972, pp 136-152, 210.
25. See, for example, "Faktory Ekonomicheskogo Razvitiya SSR" [Factors in Economic Development of the USSR], Moscow, 1970, pp 115-116.

26. "Materialy...", op. cit., p 52.
27. See, for example, I. I. Changli, "Trud. Sotsiologicheskiye Aspekty Teorii i Metodologii Issledovaniya" [Labor. Sociological Aspects of the Theory and Methodology of Research], Moscow, 1973, p 97; N. Gvozdeva, "The Nature of Labor and Its Characteristics in the Period of Developed Socialism," EKONOMICHESKIYE NAUKI, 1976, No 8, p 10; V. M. Buzuyev, "Tekhnicheskii Progress i Tvorcheskii Trud" [Technical Progress and Creative Labor], Moscow, 1977, p 7.
28. See, for example, S. F. Yelisseyev, "Sotsial'nyye Problemy Sovremennoy Nauchno-Tekhnicheskoy Revolyutsii" [Social Problems of the Contemporary Scientific-Technical Revolution], Ufa, 1974, p 12; R. K. Ivanova, op. cit., pp 35-73.
29. To be specific, N. V. Markov believes that the nature of labor will change qualitatively on the basis of mechanization and automation of production-labor processes (see N. V. Markov, "Nauchno-Tekhnicheskaya Revolyutsiya: Analiz, Perspektivy, Posledstviya" [The Scientific-Technical Revolution: Analysis, Prospects, and Consequences], Moscow, 1971, p 169).
30. See V. I. Lenin, "Poln. Sobr. Soch." [Complete Works], vol 7, p 45.
31. D. Karpukhin and I. Oblomskaya, "Social Labor Under Socialism in the Current Phase," VOPROSY EKONOMIKI, 1977, No 11, p 60.
32. Ibid.
33. The specific features of contemporary production are far from requiring that the worker be ready to move constantly from one enterprise, shop, section, and job to another and from one specialized function to another, as is sometimes thought; what is required above all is the ability to insure optimal functioning of complex machinery with steadily increasing variability in the assortment of output produced and change in the structure of labor-intensiveness. Therefore, the worker should be able to constantly replenish his knowledge, improve skills, and orient himself to production work taking into account its actual complexity and specific features. It hardly seems likely that the worker of the future will be able to work with any type of equipment any more than the worker today.
34. Marx and Engels, op. cit., vol 23, p 434.
35. See "Yedinyy Tarifno-Kvalifikatsionnyy Spravochnik Rabot i Professiy Rabochikh" [Uniform Rate-Skill Manual of Worker Jobs and Occupations], Moscow, 1969, vyp. 2, p 325.
36. See P. P. Luzan, "Sotsial'noye Razvitiye Kollektiva i Izmeneniye Soderzhaniya Truda" [Social Development of the Collective and Change in the Content of Labor], Moscow, 1978, p 30.

37. Lenin, op. cit., vol 36, p 369-370.

38. Ibid., vol 52, p 23.

39. L. I. Brezhnev, "Speech at the 16 November 1981 Plenum of the CPSU Central Committee," PRAVDA, 17 November 1981, p 1.

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LABOR

IMPROVED ON-THE-JOB TRAINING IN AGRICULTURE DEEMED ESSENTIAL

Moscow KADRY SEL'SKOGO KHOZYAYSTVA in Russian No 6, Nov-Dec 81 pp 60-65

[Article by L. Kostin, first deputy chairman of the USSR State Committee for Labor and Social Problems: "Improve the Vocational Training of Workers in Production"]

[Text] The resolutions of the 26th Congress of the CPSU envision all-out development of the agroindustrial complex and proportional, balanced growth of agriculture, the industrial sectors that serve it, the food industry, and the branches of the economy involved in the procurement, storage, processing, transportation, and distribution to the consumer of agricultural products. To meet these challenges we need above all skilled cadres, both managers and workers, people who are capable of performing their assigned duties successfully.

Unfortunately, we do not have enough of such cadres, especially highly skilled workers, and the solution to this problem is made more difficult by the current demographic situation which, as Comrade L. I. Brezhnev observed in his talk at the November 1981 Plenum of the CPSU Central Committee, demands better use of labor resources. The need for labor force is felt above all by the kolkhozes, sovkhozes, and other agricultural enterprises of the Nonchernozem Zone of the RSFSR, Siberia, and the Far East; but their need is not for labor force in general, it is for skilled workers, the most able contingent. Therefore, it is obvious that a decline in the growth of labor resources must be compensated for by an increase in the level of worker skills (qualifications). This demands constant improvement in all forms of worker training and retraining.

The vocational-technical schools are the main source from which enterprises of the agroindustrial complex receive skilled workers. They provide about 50 percent of agriculture's need for workers and play a significant part in meeting the needs of other sectors of the agroindustrial complex for skilled workers. Further development of the system of vocational-technical education is envisioned in the 11th Five-Year Plan.

At the same time, the system of vocational training of workers at the production site [on-the-job-training; OJT] plays an important part in training cadres for the common occupations.

Each year more than 850,000 persons receive vocational training at the sovkhozes and kolkhozes alone, and this includes more than 550,000 in machine operator occupations and some 130,000 livestock specialists. A great deal of work is being done to raise their qualifications. In 1980 about 3 million kolkhoz members and workers at sovkhozes, water management organizations, and enterprises of USSR Goskomsel'khoztekhnika [State Committee for Supply of Production Equipment for Agriculture] raised their qualifications. Most of the trainees were employed in crop farming and animal husbandry.

A great deal of attention is being devoted to raising the qualifications of machine operators, above all tractor operators. As a result, the farms are receiving more 1st and 2nd class machine operators. This is especially important because their labor productivity is 25-30 percent higher than 3rd class tractor operators.

In the 11th five-year plan the USSR Ministry of Agriculture plans to train more than 3 million workers: more than half of them will be tractor operators, almost 390,000 will be motor vehicle drivers, 224,000 land reclamation workers, and about 670,000 animal husbandry workers. During this time more than 14 million workers and kolkhoz members are to raise their qualifications, and the percentage of 1st and 2nd class machine operators is to rise to 65 percent.

An extensive network of training combines and training points has been set up at enterprises and organizations of the sectors that serve agriculture: food industry and trade, procurement and storage, and transportation and processing of agricultural output. Classrooms, offices, laboratories, work shops, and training shops and sections have been organized at these enterprises and organizations, and skilled cadres of organizers, teachers, foremen, and production training instructors have been selected.

Thus, the system of USSR Goskomsel'khoztekhnika has organized and operates 148 training combines and 4,000 training points. The USSR Ministry of Agriculture has 361 training combines, while the USSR Ministry of Rural Construction has 235 training combines and points. Vocational training of workers is carried on at 10 republic training combines and 312 training points in the system of the USSR Ministry of Procurement.

The main thing now is to constantly improve the vocational training of workers on the job and to raise the quality and efficiency of this work. The 1979 decree of the CPSU Central Committee and USSR Council of Ministers entitled "Steps Toward Further Improvement in Training and Raising the Qualifications of Workers at the Production Site" outlined the principal ways to solve this problem. Implementation of this decree should be the focus of attention for the ministries, departments, managers of enterprises, organizations, and farms, and all persons engaged in vocational training of workers.

Important steps have been taken in conformity with this decree in recent years to improve on-the-job training, retraining, and raising qualifications for workers. A new standard statute has been ratified which contains a number of basic goals that define the prospects for improving the system. The USSR State Council for Vocational-Technical Education was reorganized as an

interdepartmental council on vocational-technical education, training, and raising the qualifications of workers in order to coordinate the work of the ministries and departments on worker training.

Normative and standard training methods documents for vocational OJT have been worked out with due regard for the new requirements and sent to the ministries and departments. The work of the ministries and departments to write syllabi and curricula is now being coordinated. The statistical reporting system for OJT and raising worker qualifications has been streamlined.

The statutes on incentive payment to employees of training combines and the procedure for certifying and granting worker qualifications are very important for improving the quality of worker training, as are various methodological recommendations.

Considerable work has been done to improve the sectorial OJT systems. The ministries and departments have formed training methods councils, ratified sectorial statutes on OJT, and worked out norms for establishing the OJT base and norms for the number of persons employed in worker training.

At the same time, the level and quality of vocational training for workers and kolkhoz members at many enterprises, organizations, and farms of certain republics and oblasts still does not fully meet current requirements.

The necessary OJT base has not been established in all places, progressive forms of training are not adequately used, and the time spent on OJT is improperly curtailed. Work to select and train teachers, instructors, and other persons employed in worker training also often fails to meet necessary requirements.

Most of the associations and enterprises of the Kazakh SSR Ministry of Meat and Dairy Industry have not established the essential conditions for worker training. The Riga Meat Packing Combine does not have an OJT base. The enterprises of the Georgian SSR Ministry of Meat and Dairy Industry are not giving proper attention to raising worker qualifications. This is also true of the Vladimir Dairy Combine and the Dushanbe Meat Packing Combine. In these places it is taking much longer to raise worker qualifications than the time established by norms.

All these shortcomings reduce the efficiency of the work being done to train workers and raise their qualifications at the production site, and the managers and party committees of all the ministries and departments of the sectors of the agroindustrial complex should direct their attention to eliminating them. The main thing in the 11th Five-Year Plan is to insure a significant improvement in the quality of vocational training of workers and kolkhoz members and to achieve a significant rise in their skills and qualifications.

One of the fundamental directions of work to improve the training of young workers is intensive development of progressive forms of training, above all in special courses that provide the most complete vocational training and

corresponding theoretical knowledge. This is the form of training that permits successful OJT of broadly qualified workers and significantly raises the quality of training.

During the 10th Five-Year Plan the number of workers trained on the job rose notably for the economy as a whole. But certain ministries and departments still are not giving this matter proper attention.

Work on the development of worker training courses is going poorly at enterprises of the Main Administration of the Microbiological Industry and the ministries of Machine Building for Animal Husbandry and Feed Production, Agricultural Machine Building, Food Industry, and the Meat and Dairy Industry. Whereas in the ministries of Agriculture and Land Improvement and Water Management and at enterprises of USSR Goskomsel'khoztekhnika "kursy" worker training accounts for 56-65 percent of all worker training, in other ministries and departments the figure is no more than 16 percent.

It would be wise to single out worker training courses as a special line in the plan when delivering assignments for OJT of skilled workers to enterprises, organizations, and farms.

It is important for the development of training courses, especially in the sectors which have many enterprises with relatively small numbers of employees, to set up interplant and interdepartmental training combines on a broad scale. Where such combines exist they have done very well. For example, 1,300 agronomists, livestock unit managers, brigade leaders, team leaders, and machine operators from kolkhozes and sovkhoses in Kaushanskiy Rayon of the Moldavian SSR raised their qualifications in the first six months of 1981 at the interdepartmental autonomously financed rayon training combine, which was established by decision of the republic Kolkhoz Council.

The time has come for ministries and departments to work out sectorial lists of worker occupations whose training can be done only at training combines. The USSR Ministry of Coal Industry has already done this.

The questions of training skilled workers for enterprises being launched in operation must be a subject of special attention to the ministries and departments. These are precisely where the latest advances of science and technology are being introduced, and this requires highly skilled cadres. But examination reveals that there are still many shortcomings here. In estimates for new construction many enterprises do not envision capital for worker training at all or provide clearly inadequate amounts. This leads to a situation where enterprises are not fully staffed with workers of the necessary skill levels and, therefore, do not incorporate projected capacities within normative times.

For example, the casting shop of the food equipment plant in Kishinev had less than 30 percent of its scheduled staff at the time when introduction began, and in fact not a single line was ready for launching in 1980. At the beginning of launching of the shop wing of the Tula Combine Plant only 69 percent of the scheduled staff was on hand. Unfortunately, these are not isolated examples.

In 1982 the ministries and departments will complete work on statutes concerning the procedure for calculating the number of skilled workers for enterprises under construction and the amount of capital for training these workers to be included in the estimates for new industrial construction.

In connection with the development of the brigade form of labor organization in the 11th Five-Year Plan workers are to be trained in second occupations on a much broader scale. As experience shows, combining occupations promotes a significant reduction in number of workers, and this is especially important given the appreciable shortage of labor resources.

Nonetheless, by no means are all workers obtaining second occupations in certain sectors of the agroindustrial complex. At enterprises of the Ministry of Meat and Dairy Industry, for example, only 3.2 percent of the workers were trained in second occupations in 1980. This training is also done on a very small scale at trade enterprises. The ministries and departments must take steps to significantly expand the training of workers in second occupations. Taking account of the specific features of production, sectorial lists of occupations recommended for combining must be developed with provision for increasing combination of occupations in plans for scientific organization of labor.

Some ministries, departments, enterprises, organizations, and farms of the agroindustrial complex underestimate the importance of the method of raising qualifications by training workers and kolkhoz members at schools for study of progressive labor methods and procedures. Only 2.6 percent of the workers at enterprises of the Ministry of Machine Building for Animal Husbandry and Feed Production were trained at the schools in 1980. This work is done on an even smaller scale at enterprises of the Ministry of Agriculture, Ministry of Procurement, and USSR Goskomsel'khortekhnika.

But the experience of recent years has demonstrated that it is entirely possible to increase the number of trainees in such schools significantly. Enterprises of the Ministry of Light Industry, for example, annually train more than eight percent of the employees of the sector in progressive labor methods and procedures. The results are evident: 68 percent of the weaving workers and 73 percent of the spinning workers are now employed in equipment service zones that surpass sectorial norms. This insures a rise in labor productivity and has a great economic impact.

In the 11th Five-Year Plan we must at least triple the number of workers who study progressive labor methods and procedures. This is a major reserve for raising labor productivity and improving the quality of output, and it must be used to the full. Therefore, proposals should be worked out on material and moral incentive to specialists and workers for organizing the study and dissemination of progressive labor methods which produce a real economic impact. The USSR State Committee for Labor and Social Problems intends to do this together with the sectorial ministries.

The courses for raising the qualifications of brigade and team leaders and their reserve personnel should be developed substantially in the 11th Five-Year Plan. The efficient introduction of progressive forms of labor organization

will depend largely on the availability of trained brigade leaders. Today, however, many enterprises of the agroindustrial complex have not properly organized training for this category of workers. To fill this gap we must work out a standard syllabus and curriculum plus methodological recommendations on organizing the work of brigade leader schools and organize the preparation and publication of special training aids.

Establishing, developing, and strengthening the OJT base is an essential condition for improving OJT and raising worker qualifications. A great deal has been done in this area in recent years. In just 1979-1980, for example, the USSR Ministry of Agriculture opened buildings at training combines for more than 2,000 students, while USSR Goskonsel'khoztekhnika has envisioned the appropriation of about 45 million rubles of capital investment for the OJT base in the 11th Five-Year Plan. But the OJT base at many enterprises, organizations, and farms still does not meet requirements. The USSR Ministry of Procurement, the Ministry of Machine Building for Animal Husbandry and Feed Production, and the USSR Ministry of Agriculture have not given their enterprises, organizations, and farms assignments to expand this training in 1981-1985. The steps being taken to increase the production of graphic training aids, equipment, and technical means are inadequate. Establishing and strengthening the OJT base is one of the most important ways to improve OJT, and it should be accomplished in the 11th Five-Year Plan.

Improving OJT requires an improvement in the qualitative composition of the employees who organize this work and those who teach, as well as systematic improvements in their qualifications.

This work has improved noticeably since release of the decree of the CPSU Central Committee and USSR Council of Ministers entitled "Steps Toward Further Improvement in Training and Raising the Qualifications of Workers at the Production Site." The graduate course of the All-Union Scientific Methods Center of the USSR State Committee for Labor and Social Problems has begun plan-based improvement in the qualifications of the management workers and specialists of the ministries and departments involved with questions of worker vocational training. Concrete steps to raise the qualifications of workers engaged in worker training have been outlined and are being implemented by the ministries of Procurement, Agriculture, Agriculture Machine Building, and others.

But this is just the beginning of the work. A great deal remains to be done to organize planned training of the organizer of worker OJT.

It is especially important now to improve the organization of steps to systematically raise the qualifications of vocational teachers and instructors and shop organizers. This work must be done according to the statute, ratified in 1980 by the USSR State Committee for Labor and Social Problems, the USSR Ministry of Higher and Secondary Specialized Education, and the USSR State Committee for Vocational and Technical Education, on the procedure for raising the qualifications of managers and specialists working on the questions of worker OJT.

The training of young workers is inseparably bound up with their indoctrination in the examples of the best traditions of the working class. The movement of

young people's tutors is very important here. In recent years this has become truly a mass movement and has had a positive influence on reducing the time it takes young people to adapt themselves to production collectives and become involved in socialist competition and the movement for a communist attitude toward labor. It has also helped strengthen labor discipline. The tutor movement has been highly praised by the party in statements by Comrade L. I. Brezhnev and in party documents. It is a challenge of special state importance to develop this movement, work regularly with the tutors, and improve their ideological-theoretical level and pedagogical skills.

The planning of worker OJT also needs significant improvements. Although in recent years the ministries and departments have established annual assignments for enterprises and organizations to train workers and raise their qualifications on the job, the shortcomings in planning have still not been entirely eliminated. Worker training is often planned not on the basis of balance calculations, but rather from the level achieved, while plans for raising qualifications are written up without considering the compulsory periods required for this training.

It is equally important to identify, summarize, and broadly disseminate progressive practices in OJT and raising qualifications. The pavilions of the Exhibition of the Achievements of the USSR National Economy, the sectorial press, and other mass information media are still used inadequately for this purpose.

Taking all these steps will make it possible to improve the quality and efficiency of OJT significantly and to raise the level of worker qualifications. It will promote more successful fulfillment of the tasks facing the agro-industrial complex to supply the country with food and agricultural raw materials.

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EDUCATION

IMPORTANCE OF VOCATIONAL- TECHNICAL EDUCATION STRESSED

[Editorial Report] Alma-Ata SOTSIALISTIK QAZAQSTAN in Kazakh 27 December 1981 carries on page 1 an 800-word boldface editorial entitled "A Concern for Industrial Education." The decisions of the 26th Party Congress allotted particular attention to improvement of the system for the vocational and technical education of workers to meet the enhanced needs of the times. Today two-thirds of young people receive a vocational-technical education as compared with only one-third during the 1960's. Some 13 million young received such education during the last 5-year plan alone; 890,000 of them in Kazakhstan where nearly 500 vocational-technical schools are in operation, 303 of them providing a middle education.

The article outlines some achievements, with particular emphasis on linking education and real life and on problem areas such as vocational-technical school lesson plans that are not organized to meet current needs, poorly chosen teachers and a lack of certain types of demonstration and training equipment. The editorial calls for a solution to these and other problems and enhanced efforts to strengthen the connection between real life and the school, to expand and fortify the material and technical bases and to use equipment profitably.

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DEMOGRAPHY

CENSUS FIGURES PUBLISHED

Moscow VESTNIK STATISTIKI in Russian No 12, Dec 81 pp 51-63

[Census material--Family composition, data on Soviet capitals and cities with more than one million inhabitants, births, deaths, natural population growth, marriages and divorces in 1981]

COMPOSITION OF FAMILIES*
Distribution of Families by Types and Size for the USSR and Union Republics

	Number of Families	Families Consisting of the Following People Living Together						Average Size of Family
		2 people	3 people	4 people	5 people	6 people	7 and more people	
Latvian SSR								
All families.....	685,137	250,061	217,261	149,647	48,315	13,413	6,440	3.1
Of these-families:								
Having one married couple, with or without children.....	455,991	159,444	164,118	107,908	18,197	3,918	2,406	3.0
Having one married couple, with or without children and with one of the married partner's parents.....	51,714	—	12,613	20,291	15,551	2,514	745	4.2
Having one married couple, with or without children with (or without) one of the married partner's parents, and with other relatives.....	26,762	—	6,913	9,835	6,594	2,439	961	4.3
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	14,555	—	—	2,714	5,880	3,964	1,997	5.5
Mothers (fathers) with children.....	102,405	76,387	19,530	3,331	760	249	168	2.3
Others.....	33,730	12,230	14,667	5,566	1,353	329	183	2.9
Kirghiz SSR								
All families.....	702,678	131,866	141,080	137,824	88,135	61,415	142,358	4.6
Of these-families:								
Having one married couple, with or without children.....	429,761	83,831	97,813	95,806	47,219	32,203	72,849	4.4
Having one married couple, with or without children and with one of the married partner's parents.....	52,606	—	6,577	11,032	12,145	6,582	16,270	5.6
Having one married couple, with or without children, with (or without) one of the married partner's parents, and with other relatives.....	67,786	—	8,530	13,767	13,924	10,409	21,156	5.8
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	43,863	—	—	2,886	7,115	7,474	26,366	7.7
Mothers (fathers) with children.....	72,810	38,268	16,982	7,364	4,259	2,786	3,251	3.0
Others.....	35,772	9,747	11,178	6,949	3,473	1,961	2,444	3.9

*Continuation of the publication of the results of the census (for the beginning see VESTNIK STATISTIKI No 2, 6-12, 1980, No 1, 2, 4, 5, 11, 1981; data on the distribution of families by types and sizes for the USSR, Kirghiz SSR, Ukrainian SSR, Belorussian SSR, Uzbek SSR, Kazakh SSR, Georgian SSR, Azerbaijan SSR, Lithuanian SSR and Moldavian SSR were published in No 11 this year.

Distribution of Families by Types and Size for the USSR and Union Republics

	Number of Families	Families Consisting of the Following People Living Together						Average Size of Family
		2 people	3 people	4 people	5 people	6 people	7 and more people	
Tajik SSR								
All families.....	636,402	83,106	89,695	95,996	75,706	66,085	225,816	5.7
Of those-families:								
Having one married couple, with or without children.....	379,973	50,623	61,428	68,688	46,481	40,113	112,630	5.2
Having one married couple, with or without children and with one of the married partner's parents.....	69,276	—	4,580	7,360	8,716	6,273	22,347	6.5
Having one married couple, with or without children with (or without) one of the married partner's parents, and with other relatives.....	53,771	—	4,694	7,691	8,959	8,025	24,402	6.6
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	77,676	—	—	2,401	5,830	8,070	61,423	9.2
Mothers (fathers) with children.....	54,560	26,596	12,572	5,996	3,724	2,461	3,211	3.2
Others.....	21,148	5,887	6,421	3,850	1,994	1,193	1,803	3.7
Armenian SSR								
All families.....	609,372	74,471	85,267	140,926	125,329	91,462	91,917	4.7
Of those-families:								
Having one married couple, with or without children.....	365,833	42,368	56,954	108,542	86,717	44,554	26,698	4.3
Having one married couple, with or without children and with one of the married partner's parents.....	56,108	—	3,322	8,084	15,222	16,109	13,371	5.6
Having one married couple, with or without children, with (or without) one of the married partner's parents, and with other relatives.....	46,278	—	3,531	8,038	10,902	11,614	12,193	5.7
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	66,833	—	—	3,371	9,015	16,340	38,107	7.2
Mothers (fathers) with children.....	50,934	24,359	13,550	8,072	2,997	1,328	628	2.9
Others.....	23,386	7,744	5,910	4,819	2,476	1,517	920	3.5

Distribution of Families by Types and Size for the USSR and Union Republics

	Number of Families	Families Consisting of the Following People Living Together						Average Size of Family
		7 and more people						
		2 people	3 people	4 people	5 people	6 people	7 and more people	
Turkmen SSR								
All families.....	475,111	65,753	72,969	76,804	56,876	48,796	253,913	5.5
Of those-families:								
Having one married couple, with or without children.....	285,670	38,511	51,041	57,980	34,893	29,299	76,946	5.1
Having one married couple, with or without children and with one of the married partner's parents.....	36,466	—	3,124	5,574	6,282	4,479	17,027	6.6
Having one married couple, with or without children with (or without) one of the married partner's parents, and with other relatives.....	40,852	—	3,340	6,011	6,772	6,175	18,554	6.6
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	47,069	—	—	1,550	3,779	5,240	36,500	9.0
Mothers (fathers) with children.....	46,589	22,117	10,237	5,412	3,375	2,473	2,975	3.3
Others.....	18,445	5,125	5,227	3,277	1,775	1,130	1,911	3.8
Estonian SSR								
All families.....	394,425	144,795	121,672	90,845	26,984	6,917	3,212	3.1
Of those-families:								
Having one married couple, with or without children.....	273,481	92,166	92,932	71,386	13,077	2,519	1,401	3.1
Having one married couple, with or without children and with one of the married partner's parents.....	23,514	—	5,776	8,768	7,255	1,314	381	4.2
Having one married couple, with or without children, with (or without) one of the married partner's parents, and with other relatives.....	13,048	—	3,309	4,823	3,305	1,166	445	4.3
Having two or more married couples, with or without children, with (or without) one of the married partner's parents, and with (or without) other relatives.....	5,749	—	—	1,055	2,246	1,616	832	5.5
Mothers (fathers) with children.....	61,570	46,139	12,635	2,105	476	144	71	2.3
Others.....	17,063	6,490	7,020	2,688	625	158	82	2.9

2. Distribution of Families According to Their Size and the Nationality of the Family Members for the USSR

	Number of Families	Families Consisting of the Following People Living Together						Average Size of Family
		2 people	3 people	4 people	5 people	6 people	7 and more people	
Urban and rural population								
All families.....	64,307,213	19,663,525	19,127,843	15,239,485	6,311,510	2,741,143	3,223,707	3.5
Families where all the members belong to one nationality.....	56,430,311	17,405,425	16,021,736	12,533,300	5,223,085	2,332,736	2,913,939	3.5
Of these, the families where all the members are:								
Russians.....	32,919,628	11,030,570	10,661,663	7,892,468	2,533,619	758,634	342,674	3.2
Ukrainians.....	9,031,764	3,182,445	2,495,634	2,066,289	830,471	307,487	146,438	3.2
Belorussians.....	1,892,158	650,124	530,708	453,064	170,745	58,313	29,704	3.2
Uzbeks.....	1,802,362	164,201	172,126	177,676	228,840	239,352	780,167	6.2
Kazakhs.....	1,039,812	112,590	144,817	165,522	149,745	130,924	336,214	5.5
Georgians.....	759,138	157,432	148,575	197,302	130,632	74,214	50,983	4.0
Azerbaijanis.....	880,952	103,267	104,519	134,266	137,975	127,975	273,597	5.5
Lithuanians.....	696,767	230,555	196,843	172,693	63,617	20,458	10,801	3.3
Moldavians.....	626,872	194,465	161,394	138,986	69,709	32,911	29,907	3.5
Latvians.....	320,525	131,625	91,174	65,614	22,837	6,349	2,926	3.0
Kirghiz.....	295,236	31,031	37,252	42,379	41,043	38,107	105,404	5.7
Tajiks.....	391,567	32,123	34,490	42,461	47,136	49,602	185,755	6.5
Armenians.....	781,737	116,231	122,616	185,726	156,939	106,960	93,265	4.5
Turkmen.....	290,216	24,732	27,890	34,176	36,055	36,956	130,407	6.3
Estonians.....	239,949	97,970	65,874	52,449	17,018	4,522	2,116	3.0
Families where the members belong to different nationalities	9,876,902	2,258,100	3,106,107	2,706,095	1,088,425	408,407	309,768	3.5
Urban population								
All families.....	42,440,151	12,364,229	13,649,547	10,563,711	3,615,572	1,255,137	991,955	3.3
Families where all the members belong to one nationality.....	34,761,416	10,606,615	11,119,033	8,408,581	2,823,963	984,916	818,308	3.3
Of these, the families where all the members are:								
Russians.....	24,195,875	7,732,030	8,248,502	5,789,844	1,756,844	476,720	191,933	3.2
Ukrainians.....	4,429,679	1,460,031	1,417,453	1,147,183	316,017	85,279	33,716	3.2
Belorussians.....	867,684	243,323	283,275	256,034	64,947	14,433	5,672	3.2
Uzbeks.....	493,691	49,340	53,800	70,812	69,111	70,183	180,445	5.8
Kazakhs.....	315,894	38,342	52,134	60,319	49,417	37,883	77,779	5.1
Georgians.....	358,194	69,182	74,572	108,686	58,185	29,552	17,969	3.9
Azerbaijanis.....	391,151	51,826	55,578	74,732	70,289	56,285	82,461	5.0
Lithuanians.....	381,497	110,991	119,638	108,228	31,525	8,089	3,026	3.3
Moldavians.....	117,048	34,072	38,597	29,854	9,017	3,040	2,444	3.3
Latvians.....	178,151	69,824	54,426	38,351	11,786	2,755	999	3.0
Kirghiz.....	47,911	6,612	8,164	9,156	7,873	5,994	10,108	4.9
Tajiks.....	102,463	9,885	10,885	13,656	13,735	13,585	40,717	6.0
Armenians.....	57,927	8,240	90,907	141,875	109,804	68,305	49,796	4.3
Turkmen.....	90,429	8,435	10,129	12,804	12,568	12,104	34,349	5.9
Estonians.....	139,682	54,165	41,342	32,412	8,955	2,042	766	3.0
Families where the members belong to different nationalities	7,678,735	1,757,614	2,530,514	2,155,130	791,609	270,221	173,647	3.5

2. Distribution of Families According to Their Size and the Nationality of the Family Members for the USSR (continued)							
	Number of Families	Families Consisting of the Following People Living Together					Average Size of Family
		2 people	3 people	4 people	5 people	6 people	7 and more people
Rural population							
All families.....	23,867,062	7,299,296	5,478,296	4,675,774	2,695,938	1,486,006	2,231,752
Families where all the members belong to one nationality...	21,668,895	6,798,810	4,902,703	4,124,809	2,399,122	1,347,820	2,095,631
Of those, the families where all the members are:							
Russians.....	8,723,753	3,298,540	2,413,161	1,802,622	776,775	281,914	150,741
Ukrainians.....	4,572,085	1,722,414	1,078,181	919,106	514,454	222,208	115,722
Belarusians.....	1,024,474	406,801	246,933	197,030	105,798	43,880	24,032
Uzbeks.....	1,306,671	114,861	118,326	146,864	159,729	169,169	599,722
Kazakhs.....	723,918	74,248	92,683	105,183	100,328	93,041	238,435
Georgians.....	400,992	88,250	74,003	88,616	72,447	44,662	33,014
Azerbaijanis.....	486,801	51,441	48,941	59,534	67,039	71,710	191,136
Lithuanians.....	313,270	119,564	77,205	64,465	31,892	12,369	7,775
Moldavians.....	509,824	160,393	122,797	109,130	60,192	29,851	27,461
Latvians.....	142,374	61,801	36,748	27,263	11,041	3,594	1,927
Kirghis.....	247,325	24,419	29,086	33,223	33,190	32,111	95,296
Tajiks.....	289,104	22,238	23,605	28,805	33,401	36,017	145,038
Armenians.....	237,810	32,991	31,709	43,851	47,135	38,655	43,469
Turkmen.....	199,787	16,297	17,761	21,372	23,467	24,852	96,038
Estonians.....	100,267	43,805	24,532	20,037	8,063	2,480	1,350
Families where the members belong to different nationalities	2,198,167	500,486	575,593	550,965	296,816	138,186	136,121
							3.8
							3.6
							3.2
							3.3
							3.2
							6.3
							5.7
							4.1
							5.9
							3.3
							3.6
							3.1
							5.8
							6.7
							4.8
							6.5
							3.1
							3.8

3. Distribution of Families According to Their Size and Social Groups of the Family Members for the USSR

	Number of Families	Families Consisting of the Following People Living Together						Average Size of all Family	Per 1,000 Families
		2 people	3 people	4 people	5 people	6 people	7 and more people		
Urban and rural population									
All families.....	66,307,213	19,663,525	19,127,843	15,239,485	6,311,510	2,741,143	3,223,707	3.5	1,000
Families where all members belong to one social group.....	44,339,092	15,439,580	12,562,025	9,432,878	3,513,233	1,536,286	1,855,072	3.3	649
Of those, families of:									
Laborers.....	28,113,151	9,549,800	7,837,886	6,119,497	2,381,555	1,017,904	1,206,409	3.4	424
Office workers.....	9,558,787	3,193,142	3,416,111	2,274,423	657,194	131,343	86,574	3.1	164
Kolkhoz workers.....	6,658,630	2,692,424	1,306,612	1,038,002	673,681	386,593	561,118	3.6	101
Families where the members belong to different social groups.....	21,968,121	4,223,927	6,565,818	5,806,607	2,798,277	1,204,857	1,368,635	3.8	331
Urban population									
All families.....	42,440,151	12,364,229	13,649,547	10,563,711	3,615,572	1,255,137	991,955	3.3	1,000
Families where all members belong to one social group.....	27,733,249	9,515,051	8,828,871	6,412,339	1,845,501	623,140	508,347	3.2	653
Of those, families of:									
Laborers.....	19,222,786	6,623,556	5,768,609	4,408,078	1,457,530	518,629	446,384	3.2	453
Office workers.....	8,129,098	2,788,834	3,031,012	1,982,537	375,845	98,430	52,440	3.1	196
Families where the members belong to different social groups.....	14,706,202	2,849,178	4,820,676	4,151,372	1,770,071	631,997	483,608	3.6	347
Rural population									
All families.....	23,867,062	7,299,296	5,478,296	4,675,774	2,695,938	1,486,006	2,231,752	3.8	1,000
Families where all members belong to one social group.....	16,605,843	5,924,547	3,733,154	3,020,539	1,667,732	913,146	1,346,725	3.6	696
Of those, families of:									
Laborers.....	8,890,365	2,926,244	2,069,377	1,711,419	924,025	499,275	760,025	3.7	372
Office workers.....	1,229,689	404,308	385,099	291,886	81,349	32,913	36,134	3.3	52
Kolkhoz workers.....	6,481,522	2,591,638	1,278,040	1,016,882	662,058	380,735	552,169	3.6	272
Families where the members belong to different social groups.....	7,261,219	1,374,749	1,745,142	1,655,235	1,028,206	572,860	885,027	4.2	304

I. STATISTICAL DATA BY UNION REPUBLIC CAPITALS AND CITIES WITH
A POPULATION GREATER THAN ONE MILLION PEOPLE

1. Number and Density of the Population on 1 January 1981

	Population in Thousands of People	Number of Inhabitants per 1 square km, Thousands of People
USSR.....	266,599	
In particular, by cities:		
Alma-Ata.....	975	5.5
Ashabad.....	325	3.9
Baku*.....	1,046	4.8
Vilnius.....	503	1.9
Gor'kiy.....	1,367	4.1
Dnepropetrovsk.....	1,100	2.8
Donetsk.....	1,040	2.9
Dushanbe.....	510	1.9
Yerevan.....	1,055	4.8
Kazan'.....	1,011	3.6
Kiev.....	2,248	2.9
Kishinev.....	539	4.1
Kuybyshev.....	1,238	2.7
Leningrad*.....	4,156	7.7
Minsk.....	1,333	7.1
Moscow*.....	8,015	9.3
Novosibirsk.....	1,343	2.8
Odessa.....	1,072	5.3
Omsk.....	1,044	2.4
Perm'.....	1,018	1.4
Riga.....	850	2.8
Sverdlovsk.....	1,239	2.5
Tallinn.....	442	2.6
Tashkent.....	1,858	7.3
Tbilisi.....	1,095	3.1
Ufa.....	1,009	2.2
Frunze.....	552	4.5
Khar'kov.....	1,485	4.9
Chelyabinsk.....	1,055	2.2

* The population of the cities of Moscow, Leningrad and Baku with the urban settlements under their jurisdictions comprises 8,203,000, 4,676,000 and 1,595,000 people respectively.

2. Birth Rate, Death Rate, Real Growth in the Population, Marriages and Divorces in 1980

	Number of Births	Number of Deaths	Real Growth in the Population	Number of Marriages	Number of Divorces	Per 1,000 People				
						Number of Births	Number of Deaths	Real Growth in the Population	Number of Marriages	Number of Divorces
USSR.....	4,851,368	2,743,805	2,107,563	2,724,597	929,616	18.3	10.3	8.0	10.3	3.5
In particular, by cities:										
Alma-Ata.....	16,979	8,659	8,320	12,124	6,375	17.8	9.1	8.7	12.7	6.7
Ashabad.....	7,208	2,522	4,686	3,311	1,216	22.4	7.8	14.6	10.3	3.8
Baku*.....	29,266	11,870	17,396	14,056	3,932	18.5	7.5	11.0	8.9	2.5
Vilnius.....	7,130	3,528	3,602	5,890	1,910	14.3	7.1	7.2	11.8	3.8
Gor'kiy.....	17,738	13,709	4,029	13,303	5,839	13.0	10.1	2.9	9.8	4.3
Dnepropetrovsk	15,992	10,258	5,734	10,613	5,598	14.7	9.4	5.3	9.7	5.1
Donetsk.....	14,698	9,647	5,051	10,371	5,608	14.2	9.3	4.9	10.0	5.4
Dushanbe.....	11,067	3,784	7,283	4,831	2,163	21.9	7.5	14.4	9.6	4.3
Yerevan.....	20,514	5,811	14,703	10,356	2,116	19.6	5.6	14.0	9.9	2.0
Kazan'.....	14,323	9,184	5,139	9,489	4,498	14.2	9.1	5.1	9.4	4.5
Kiev.....	34,639	18,265	16,374	20,610	11,714	15.6	8.2	7.4	9.3	5.3
Kishinev.....	9,652	3,740	5,912	6,407	2,758	18.2	7.1	11.1	12.1	5.2
Kuybyshev.....	16,602	12,251	4,351	12,541	6,643	13.5	9.9	3.6	10.2	5.4
Leningrad*.....	63,887	53,839	10,048	56,048	27,363	13.7	11.6	2.1	12.0	5.9
Minsk.....	24,678	7,008	17,670	13,404	6,236	18.8	5.3	13.5	10.2	4.7
Moscow*.....	110,859	95,452	15,407	87,180	42,807	13.6	11.7	1.9	10.7	5.3
Novosibirsk....	20,789	12,910	7,879	16,131	8,428	15.6	9.7	5.9	12.1	6.3
Odessa.....	12,576	10,686	1,890	10,807	6,401	11.8	10.0	1.8	10.2	6.0
Omsk.....	17,895	8,809	9,086	12,691	5,791	17.3	8.5	8.8	12.3	5.6
Perm'.....	14,644	9,175	5,469	9,877	4,322	14.5	9.1	5.4	9.7	4.3
Riga.....	10,885	9,357	1,528	9,446	5,342	12.9	11.1	1.8	11.2	6.3
Sverdlovsk.....	17,537	11,630	5,907	13,187	6,034	14.2	9.4	4.8	10.7	4.9
Tallin.....	8,390	4,457	1,933	4,818	2,354	14.6	10.2	4.4	11.0	5.4
Tashkent.....	35,219	15,042	20,177	18,268	8,543	19.2	8.2	11.0	9.9	3.6
Tbilisi.....	17,188	8,831	8,357	10,945	5,173	15.8	8.1	7.7	10.1	2.9
Ufa.....	15,197	7,377	7,820	9,142	4,169	15.2	7.4	7.8	9.2	4.2
Frunze.....	10,859	4,264	6,595	6,180	2,509	19.8	7.8	12.0	11.3	4.2
Khar'kov.....	20,392	14,598	5,794	15,039	7,516	13.8	9.9	3.9	10.2	5.1
Chelyabinsk....	16,445	9,089	7,356	10,989	5,323	15.7	8.7	7.0	10.5	5.1

*Including the urban population under the jurisdiction of the city soviet.

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DEMOGRAPHY

WAYS TO DEVELOP RATIONAL MIGRATION POLICY REVIEWED

Moscow EKONOMICHESKIYE NAUKI in Russian No 12, Dec 81 pp 53-57

[Article by A. Khomra, candidate of economic sciences, Kiev: "The Migration Policy of a Developed Socialist State — Problems of Refinement"]

[Text] Migration policy is necessitated by the objective processes of development of socialist production, its constant structural and territorial changes which are especially felt under contemporary conditions when enormous new regions of our country are being developed economically on an intensive basis. The 26th Congress of the CPSU decreed "accelerated growth in the economic potential of the eastern regions."¹ This demands the influx of a large number of skilled workers to these regions, and that means corresponding migratory shifts in population. Such shifts are constantly required on one scale or another, which makes it necessary for socialist society to follow a planned migration policy and to refine this policy, on the same planned basis, in close coordination with the management of other socioeconomic processes.

In order to act as an effective tool for purposefully influencing migratory processes, migration policy must be sufficiently stable in its foundations and relatively flexible in particulars, where a quick reaction to changes in certain relatively local circumstances is required. The tactical measures of migration policy, unlike the general strategic line which is uniform for the entire country, may differ by order and methods of execution and by the regions that they cover.

It is hardly correct to consider stabilizing the territorial organization of labor resources by reducing individual migration activity to be the most significant way to improve migration policy.² Under this approach migration problems are reduced to problems of worker mobility. Although these problems are related, they are different. The main thing in resolving the questions of migration policy is to determine the criteria for optimizing migration processes, which should be based on a global criterion of optimality of development that expresses the action of the basic economic law of socialism. The problem of identifying such criteria must be solved specially, and that is not the purpose of this article. Here we will only point out that refinement of migration policy under conditions of developed socialism should be based to a larger extent on the known patterns that govern population reproduction. It should be considered here that population migration itself may be viewed as a source of regional differences in this reproduction and at the same time, to a significant

degree, as their result. Therefore, one of the approaches to developing measures of migration policy is oriented to evening out the conditions of population reproduction in community and rayon cross-sections. It follows from this that migration policy in our country is regional within the framework of a uniform nationwide demographic policy. Our country is divided according to interregional differences expressed in prospective balances of labor resources into regions that desire population influx, those that desire population outflow, and those which are neutral with respect to migration. The identification of these three types of regions is done separately for urban and rural areas. This kind of regionalization may be called first-order regionalization; more detailed analysis is necessary for deeper consideration of the matter.

In particular, the Ukrainian SSR faces a critical problem of regulating migratory shifts between the city and the countryside. In some regions the intensity of outflow of rural population is so great that the labor shortage it causes is inhibiting further mechanization of agricultural production. Analysis shows that the departure from rural areas of men after service in the Soviet Army plays the key role here. Republic directive and planning agencies have posed the challenge of bringing world migration to the cities into line with regional differences in labor productivity in agriculture. Solving this problem presupposes, in addition to continuing to supply agriculture with machinery and raising the efficiency of its use, steps which more fully promote comprehensive development of the individual rural inhabitant. We must not limit the training of workers in the common agricultural occupation to machine operators only; it is essential to begin giving all agricultural workers more highly skilled preparation so that they have modern knowledge in the fields of production technology, agronomy, animal and soil science, biology, ecology, and the like. All this presupposes significant general educational growth and a broadening of outlook.

Many researchers consider the solution to the problem of keeping young people in the countryside and attracting skilled workers to rural areas to be optimizing the production and nonproduction spheres of activity.³ The promise of this approach is made greater by the fact that some 80-90 percent of capital investment in the rural areas of the Ukraine today goes directly for production, while just 10-20 percent is used to build residential and cultural-domestic buildings.⁴ The problems of rationalizing migration from the country can hardly be solved without taking steps to accelerate the growth of the social-domestic infrastructure in the rural area.

The implementation of migration policy occurs on three levels: the population as a whole, collectives, and individuals. In recent times a growing role has been assigned to the second level, because plans for social development usually include the questions of worker movement not only within the collective but also between the collective and the world outside it. The general level of implementation of migration policy is a function of its development at each of these levels. But in the development of practical measures in scientific studies so far, the individual level has generally been avoided. On this basis recommendations are given to "raise" and "increase" some things, "reduce" some things, and so on. The use of terms such as these instead of clear, rigorous,

and definite indicators and norms indicates that the laws and patterns of the functioning and development of migration processes have not been adequately studied. It seems to us that this shortcoming cannot be overcome within the framework of a limited approach to migration from the standpoint of the individual only.

The measures of migration policy are broken down, with a certain degree of arbitrariness, by the nature of their effect on the population into three groups: economic, moral, and administrative measures, with economic measures playing the leading part. In recent times it has become fashionable to reject this traditional position based on the findings of sociological surveys concerning motives for resettlement. Higher wages is far from the paramount motive.⁵ But it is incorrect to reduce the economic factors of migration to nothing but the level of earnings. It is equally incorrect to approach the interrelationship among the measures of demographic policy guided only by the motives given for resettlement.

Monetary payments in the form of supplements to earnings and outright grants play a leading role among economic measures that stimulate migrations. They are receiving development in the current five-year plan. Specifically, regional coefficients to the wages of workers and employees for whom no such coefficients have been established are to be introduced in the Urals and certain rayons of Kazakhstan and in the southern rayons of the Far East and Eastern Siberia pay supplements for continuous years of service are to be instituted.⁶ And this will unquestionably have a beneficial effect on migration. At the same time, raising monetary income cannot, of course, be the only factor that inspires people to move to another place of work and residence. In particular, it must be considered that increasing the sum of monetary income still does not always mean that it will be possible for the one who receives this income to spend it freely, in conformity with his needs, purchasing essential consumption goods and services in his city or town. The question is not just the amount of money, but also the extent to which residents are provided with comfortable housing and the services of stores, dining halls, everyday service enterprises, children's preschool institutions, schools, libraries, clubs, movie theaters, and the like. Therefore, economic measures should also cover development of the material base and organization of the functioning of infrastructure enterprises and institutions that serve the population.

Without underestimating the role of distribution according to labor in regulating migratory mobility of the population, we will observe that the general direction of improvement in migration policy, in our opinion, nonetheless involves a further increase in the role of public consumption funds, above all the fund for joint satisfaction of needs. During presentation of the Accountability Report of the CPSU Central Committee to the 26th Party Congress, L. I. Brezhnev observed that pay supplements alone cannot solve the problem of rationalizing flows of migration, so an even higher rate of construction of housing and the entire sociocultural complex is planned for Siberia, the Far East, and the Far North along with further improvement in the supply of consumer goods there.⁷ The document "Basic Directions of Economic and Social Development of the USSR for 1981-1985 and the Period Until 1990" outlines a

bolstering of the role of payments and benefits granted to the population from public consumption funds in solving production and social-demographic problems.⁸

The first order of business today is to increase the "migration efficiency" of the enormous payments being made from public consumption funds to achieve this efficiency. The superiority of public consumption funds to wages in stimulating in-migration and increasing the proportion of persons who settle in the area stems especially from the fact that the consumption of free and partially paid-for goods and services occurs only in the place where they are offered. Departure from the region automatically deprives those who leave of these benefits. A particular measure of migration policy that deserves attention is introducing a territorially differentiated guaranteed minimum of free public housing.⁹ Another interesting proposal as a very effective means of regulating population migration is to differentiate apartment payments depending on the attractiveness of the corresponding populated point.¹⁰

The use of public consumption funds as a means of controlling migration processes (more broadly — territorial distribution of population) must, needless to say, be approached with due regard for the fact that this is not the primary function of public consumption funds. Overestimating this function could lead to a partial transformation of public consumption funds into a variation of collective and individual distribution according to labor, to a gradual transformation of these funds into the principal means of evening out territorial differences in standard of living. Considering public consumption funds as the basic means of eliminating territorial differences in standard of living requires that public needs for food, clothing, footwear, cultural-domestic and household articles, transportation, communications, and the like be met through these funds. This is unrealistic.

The economic measures of migration policy should consider that the creative stimuli to labor activity, related to the nature, content, and conditions of the work, have been specially singled out among labor stimuli recently. Already today the most important criterion by which employees choose a place of work is often its attractiveness. This does not indicate that the economic measures of migration policy have lost their leading role; on the contrary, it indicates that this role has intensified.

While stressing the unity of economic, moral, and administrative measures of migration policy, it should be observed that this unity is not absolute and involves resolving certain conflicts. Singling out moral measures as measures of a higher type seems persuasive to us. In the future the economic measures of migration policy will take on new content and merge with the moral measures, while administrative measures will die out.

The measures of migration policy we have considered indirectly influence the course of migration processes. In addition to them there are forms of direct action: organized recruitment, resettlement of families to agricultural enterprises in new development regions, assignment of young specialists, and the like. The organized forms of resettlement make it possible to concentrate

the necessary number of workers in the decisive sectors of public production very quickly. It is difficult to give preference to any one particular form of organized resettlement because of the different levels of the objectives achieved by means of these forms. The forms of organized resettlement undergo changes owing to development of the structure of the national economy, the rise in its technical level, and other factors. New forms require thorough economic analysis; but old forms, above all organized recruitment, must be more actively adapted to new conditions, while being preserved for the near future without fundamental change. At the present time the organizations and departments carrying on organized resettlement are scattered and uncoordinated. Participants include agencies of the State Committee for Labor and Social Problems, higher educational institutions, the vocational-technical educational system, and Komsomol agencies that send young men and women to Komsomol construction projects. It would be wise, as proposed by A. E. Kotlyar and V. V. Trubin, to use the existing network of city bureaus for labor placement and public information to establish centers for distribution and redistribution of labor resources, assigning them the functions of organizing and conducting organized recruitment, agricultural resettlement, public appeals, and transfers of workers and employees to permanent jobs at other enterprises and organizations.¹¹ This kind of reorganization of the work of the labor agency also presupposes further organizational improvement at the oblast and rayon levels.

At the present time there are no generally accepted criteria for evaluating the work of the agencies engaged in organized resettlement of the population. Among the departmental indicators of efficiency of their work, quantitative indicators predominate over qualitative ones, which has certain negative consequences. In particular, the contingent of workers assigned on the basis of organized recruitment is composed chiefly of persons who are not engaged in public production (discharged from work at their own request or for violations of labor discipline), and as a result this contingent is more difficult to keep in the regions to which they are assigned. It seems to us that the work of the agencies in charge of organizing resettlement could be improved by evaluating their activity taking into account, in particular, this important aspect: keeping resettled persons in their assigned regions.

Very tangible advances have been made in working out the migrator policy of a developed socialist society. At the same time much remains to be done to see that the measures that have been developed and introduced work to their full potential. This demands constant refinements of migration policy based on thorough theoretical study and generalization of experience with measures that are put into effect.

FOOTNOTES

1. "Materialy XXVI S'yezda KPSS" [Materials of the 26th Congress of the CPSU], Moscow, 1981, p 185.
2. See V. V. Onikiyenko, V. V. Prozhogin, and B. I. Trubenko, "Problems of the Territorial Organization of Labor Resources," in "Problemy Territorial'noy Organizatsii Trudovykh Resursov" [Problems of Territorial Organization of Labor Resources], Kiev, 1978, p 75.

3. See Ye. Yakuba, "The Migration of the Rural Population of the Ukraine," *EKONOMIKA SEL'SKOGO KHOZYAYSTVA* 1978, No 6, p 89; T. A. Fagradyan, "One Approach to Forecasting the Agricultural Production of a Region," *IZV. SO AN SSSR, SER. OBSHCHESTVENNYE NAUKI*, 1979, Vyp 1, p 86.
4. See E. I. Kruglyak, "Some Socioeconomic Consequences of Comprehensive Reconstruction of Rural Populated Points," in "Planirovka, Zastroyka i Blagoustroystvo Sel Ukrainskoy SSR" [Planning, Construction, and Fixing up of Towns in the Ukrainian SSR], Kiev, 1978, Vyp 1, p 28.
5. See, for example, A. F. Yalalov, "Some Characteristics of the Contemporary Migration from the Country to the City and Problems of Controlling It," *NAUCHNYY KOMMUNIZM*, 1981, No 3, pp 40-41.
6. See "Materialy..." op. cit., p 104.
7. Ibid., p 54.
8. Ibid., p 178.
9. See S. S. Shatalin, "Some Socioeconomic Problems of the Development of the USSR National Economy," *EKONOMIKA I MATEMATICHESKIYE METODY*, 1979, No 3, pp 449-450.
10. See, for example, V. A. Gerasimov, "Obshchestvennyye Fondy Potrebleniya: Neobkhodimost', Sushchnost', Napravleniya Razvitiya" [Public Consumption Funds: Necessity, Essence, and Directions of Development], Minsk, 1978, p 165.
11. See A. E. Kotlyar and V. V. Trubin, "Problemy Regulirovaniya Pereraspredeleniya Rabochey Sily" [Problems of Regulating the Redistribution of Labor Force], Moscow, 1978, pp 74-78.

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DEMOGRAPHY

UZBEKISTAN POPULATION PROJECTIONS FOR 1990, 2000

[Editorial Report] Tashkent OZBEKISTAN 'ADABIYATI VA SAN'ATI in Uzbek 23 October 1981, No 30, p 4 carries a 1,800-word article by Yu. Davudov, "Profession With Many Concerns." The article about Doctor of Economic Sciences N. Ziyadullaev mentions that Uzbekistan is the republic with the most young people in the entire country. The population is constantly growing and many families raise five or six children. In the year 1990, 22 million people will live in Uzbekistan, and in the year 2000, 30 million will live there.

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